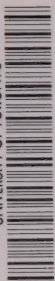


FACULTY OF DENTISTRY LIBRARY
UNIVERSITY OF TORONTO



3 1761 03912471 4

The Dental Library, University of Toronto
and the
Harry R. Abbott Memorial Library
124 EDWARD ST., TORONTO 2, ONTARIO

Lewis, D.W.

Historical trends in the supply of dentists
and dental hygienists in Ontario.



HISTORICAL TRENDS
IN THE SUPPLY OF
DENTISTS AND DENTAL HYGIENISTS
IN ONTARIO

by

D. W. Lewis, E. R. Wollis, E. A. Lines

June, 1979

RESEARCH REPORT

*issued by the
Dental Health Care
Services Research Unit*

THE FACULTY OF DENTISTRY



UNIVERSITY OF TORONTO



AIR 3522

HISTORICAL TRENDS
IN THE SUPPLY OF
DENTISTS AND DENTAL HYGIENISTS
IN ONTARIO

by

D. W. Lewis, E. R. Wollis, E. A. Lines

June, 1979

Research Report No. 27
Dental Manpower Report No. 2 (DM 381)

Research supported in full through
Demonstration Model Grant DM 381 of
The Ontario Ministry of Health

Department of Community Dentistry
Faculty of Dentistry, University of Toronto
124 Edward Street, Toronto
Ontario, Canada
M5G 1G6

ACKNOWLEDGEMENTS

The assistance of Elaine McKenna,
Judy McGhie and, especially,
Betty Conroy in the preparation
of this report is gratefully
acknowledged.

TABLE OF CONTENTS

	<u>Page</u>
SUMMARY	iii
LIST OF TABLES	v
LIST OF APPENDICES	vi
INTRODUCTION	1
General Purpose of the Report	2
METHODS AND APPROACH	3
Principal Data Sources	3
Caveats	3
SUPPLY AND DISTRIBUTION OF DENTISTS AND DENTAL HYGIENISTS IN CANADA	4
1. Canadian Trends in Dentist Supply and Population, 1966 to 1976	4
2. Median Year and Distribution of Dentist Graduation	6
3. Trends in Net Growth of Dentists, 1962 to 1978	10
4. Certified Specialist Dentists and Licensed Dental Hygienists in 1968, 1973 and 1978	10
5. Licensure Outside Ontario	14
6. Regional Supply and Distribution of Non-Specialist Dentists in Ontario	17
7. Dentist Supply Relative to Community Population Size	22
8. Communities Without Dentists	26
APPENDICES	29



Digitized by the Internet Archive
in 2025 with funding from
University of Toronto

<https://archive.org/details/31761039124714>

SUMMARY

Extensive reworking of published data on dentists and dental hygienists from the Royal College of Dental Surgeons of Ontario, and Ontario government population figures was undertaken to permit examination of trends in the supply and distribution of dentists (specialists and non-specialists) and dental hygienists in Ontario, mainly over the past decade. Additionally, detailed appendices were compiled as resource material for future research on dental manpower in Ontario. Some of the findings follow.

1. Between 1971 and 1976 the percentage growth in the number of dentists exceeded population growth in all provinces; Ontario ranked about half-way in dentist growth among provinces.
2. The age of Ontario's dentist population - as suggested by year of graduation as a dentist - varied among and within regional planning areas; about 37% of licensed dentists residing in Ontario graduated between 1970 and 1978.
3. Since 1969 the mean net growth in the number of licensed dentists has been 131 per year, with a low of 57 in 1975 and a high of 298 in 1977. Between 1962 and 1968 net growth averaged 67 dentists per year.
4. The number of certified dental specialists practising in Ontario more than doubled between 1968 and 1978. Most specialists (about 75% in 1978) resided in the Central Regional Planning Area of Ontario and, even here, tended to be concentrated in a few locations within this large region. Growth in numbers of specialists between 1968 and 1978 was evident in all planning regions of the province; however, the Northeastern and Northwestern planning regions still had relatively very few dental specialists.
5. Of the four largest clinical specialties, between 1973 and 1978 the growth of licensed oral surgeons was greatest, followed in decreasing order by paedodontists, periodontists and orthodontists.

6. Between 1968 and 1978 the number of licensed dental hygienists residing in Ontario increased by an average of about 29% per year; there were 306 dental hygienists in 1968 and 1,196 in 1978. Although 70% of dental hygienists lived in the Central Planning Region in 1978, 84% did so in 1968. Thus dental hygienist growth in other regions exceeded that of the Central one in the past decade.
7. Between 1968 and 1978 there was a 12.6% increase in the supply of licensed non-specialist dentists relative to population in Ontario, from 2,613 persons to 2,285 persons per non-specialist dentist. The supply of dentists relative to population varied among and within the province's regional planning areas.
8. The simple criterion of equivalence between each location's supply of dentists and population as percentages of Ontario's 1978 totals revealed many regional disparities in the distribution of non-specialist dentists across Ontario's 49 counties, districts and regional municipalities. The number of dentists in each county, district or regional municipality, expressed as a percentage of the total number of dentists in Ontario, was compared to the population of each county, expressed as a percentage of Ontario's total population. In 39 counties the percentage of Ontario dentists was lower than the respective percentage of Ontario population, while in four these percentages matched and in six the relative percentage of dentists exceeded the relative percentage of population.
9. Between 1968 and 1978 there has been an increase in supply of dentists relative to population in all community population categories; in general, this growth was lower in the largest centres (over 250,000) than in the other, smaller population categories. Despite these differences in growth, the relative supply of non-specialist dentists generally improved as community population size increased in each of the study years -- 1968, 1973 and 1978. However, the dentist supply status of individual communities within each overall population size category varied.
10. An examination of the supply of dentists both in discrete municipalities and in the more realistic (because adjacent built-up areas and labour force commuting patterns are considered) urban aggregations revealed that the largest centres (over 250,000) have disproportionately more non-specialist dentists than their relative population size warranted. The 1978 distribution of non-specialist dentists in the remaining, smaller population size categories is remarkably proportional.
11. In 1978 there were 67 communities that were without dentists and more than 11 kilometres from a place with at least one dentist. Eight of the 67 communities were more than 31 kilometres (19.4 miles) from the nearest dentist and 4 of these 8 had populations greater than 1,000 people.

LIST OF TABLES

	<u>Page</u>
1. Growth trends in the number of dentists and population in Ontario and other Canadian provinces 1966, 1971 and 1976	5
2. Licensed dentists in Ontario by county, district or regional municipality and year of D.D.S. graduation	8
3. Distribution of year of dentist graduation by regional planning area	9
4. Additions, deletions and net growth -- Royal College of Dental Surgeons register 1963-68, 1969-73 and 1974-78	11
5. Certified specialist dentists and licensed dental hygienists in 1968, 1973 and 1978 by regional planning area	13
6. Trends in specialization by specialty in Ontario 1968-1978	15
7. Out-of-province dentists, specialists and dental hygienists licensed in Ontario in 1968, 1973 and 1978	16
8. 1978 relative supply of non-specialist dentists and population in Ontario's regional planning areas	18
9. Population per non-specialist dentist in Ontario in 1968, 1973 and 1978 by county, district or regional municipality	20
10. Summary: Population per non-specialist dentist in 1968, 1973 and 1978 in Ontario municipalities grouped by population size category	23
11. Summary: Population per non-specialist dentist in 1968, 1973 and 1978 in aggregated urban areas of Ontario, grouped by population size category	25
12. Number of towns and villages without a dentist in 1978 by population size and distance from nearest community with a dentist	27
13. Number of towns and villages without a dentist in 1968, 1973 and 1978 by population size and distance from nearest community with a dentist	28

LIST OF APPENDICES

	<u>Page</u>
1. Data compilation and sources	30
2. 1978 Ontario Municipal Directory designations for place names still in use	36
3. Population per licensed dentist in Ontario counties, districts and regional municipalities in 1968, 1973 and 1978	40
4. Year of D.D.S. graduation of dentists licensed in Ontario in 1978 by county, district or regional municipality	44
5. Licenses issued, additions and deletions from Royal College of Dental Surgeons Register 1962 to 1978	48
6. Certified specialist dentists and licensed dental hygienists in Ontario counties, districts and regional municipalities in 1968, 1973 and 1978	49
7. Population per non-specialist dentist in Ontario counties, districts and regional municipalities in 1968, 1973 and 1978	53
8. Population per non-specialist dentist in 1968, 1973 and 1978 in Ontario municipalities with 1978 populations over 100,000	56
9. Population per non-specialist dentist in 1968, 1973 and 1978 in Ontario municipalities with 1978 populations between 25,001 and 100,000	58
10. Population per non-specialist dentist in 1968, 1973 and 1978 in Ontario municipalities with 1978 populations between 10,001 and 25,000	60
11. Number of non-specialist dentists in 1968, 1973 and 1978 in Ontario municipalities with dentists and with 1978 populations of 10,000 and less	63

.... continued

LIST OF APPENDICES

12.	Population per non-specialist dentist in 1968, 1973 and 1978 in aggregated urban areas of Ontario with 1978 populations over 250,000 and between 100,000 and 250,000	68
13.	Population per non-specialist dentist in aggregated urban areas of Ontario (with component municipalities indicated) in 1968, 1973 and 1978	71
14.	Towns and villages without a dentist in 1978 by population size and distance from nearest community with a dentist	82
15.	Communities without dentists in 1973 but with one or more dentists in 1978	86

INTRODUCTION

The frequent concerns voiced a few short years ago by dental educators, dental providers, government and the public about an undersupply and maldistribution of dental personnel in Ontario have disappeared. Today a different concern is expressed, at least by the first three groups mentioned: that of a possible oversupply of dental personnel.¹ As an introductory phase of the detailed research currently being conducted by the Dental Health Care Services Research Unit into the present and near-future status of Ontario's dental manpower situation, this report has been produced to provide the necessary historical perspective.

This is a brief, descriptive report outlining changes, principally over the past decade, in the supply and distribution of dentists (specialists and non-specialists) and dental hygienists in Ontario. No analysis of the reasons for these changes or of the characteristics of the personnel (other than year of dentist graduation) or their practices is attempted. However, the Unit's first dental manpower report of the present series did examine some of these latter aspects for

¹The words "oversupply, undersupply, maldistribution" are used in a very general, imprecise way here - just as they are in most discussions of health manpower. Their proper use assumes that what constitutes both the adequate supply and appropriate geographic deployment of dental personnel are known. The necessary criteria for making these judgements are not established. As explained in another report,² the concepts must be socially defined; otherwise they are open to the perceptions and biases of individuals.

Canada as of 1977 as well as dental manpower supply prior to the past decade.²

Historical data on dental manpower in Ontario are scarce, and not readily available nor collected together in a single reference source. In its annual Proceedings, the Royal College of Dental Surgeons of Ontario (R.C.D.S.) publishes population per dentist ratios for Ontario's counties, districts and regional municipalities. However, between 1973 and 1977 even data at the county level were available only in more aggregated form. The R.C.D.S. published figures on the total number of licensed dentists and dental hygienists annually and from time to time during the year. Information on individual licensees is found in the Membership List of the College, an annually-prepared register providing the names, addresses and year of graduation for dentists, specialists and dental hygienists. (No tabulations of this information are provided.) Existing data are poor regarding the numbers and deployment of dental assistants and other dental auxiliaries. The number of licensed denture therapists can be obtained from their provincial licensing body.

General Purpose of the Report

The purpose of this report is to provide data on past trends in the supply and distribution of specialist and non-specialist dentists³

² Lewis, D. W. Canadian Dental Manpower - Supply, Distribution, Requirements. Research Report No. 26, Dental Health Care Services and Epidemiology Research Unit, 1979.

³ In this report non-specialist and specialist dentists are usually treated separately. For interested readers the regional supply of all licensed dentists is presented in Appendix 3.

and dental hygienists in Ontario, both as background to current detailed studies of dental manpower and as a reference source for future dental manpower research.

METHODS AND APPROACH

Principal Data Sources

The annual Membership Lists of the R.C.D.S., population data from appropriate Ontario Municipal Directories (and for 1978, the Central Statistical Services branch of the Ontario Ministry of Treasury and Economics), and data gathered earlier by the Department of Community Dentistry, Faculty of Dentistry, University of Toronto are the principal data sources utilized. These data have usually required extensive reworking. To shorten the main body of the report details regarding data compilation are included in Appendix 1.

Consistent with one of its objectives, this report contains much resource information on the supply and distribution of Ontario dental manpower, primarily in three target years -- 1968, 1973 and 1978. Because of its volume and purpose this material is catalogued in the Appendices. In order to describe dental manpower trends, brief summaries of the appended material are contained in the main body of the report.

Caveats

The shortcomings of the population per dentist ratio as an indicator of supply of dental manpower are well known, but data limitations

preclude a more sophisticated examination at this time. The extent of practice activity (full- or part-time) of licensed dentists represented here is not known, although other work suggests that determination of full-time equivalent dentists requires a reduction of from 10% to 20% in the licensed dentist figures. The available addresses of dentists and dental hygienists indicate only one location, which for most is their office address. However, problems arise if a home address has been supplied or if more than one practice location is involved. Separate treatment of individual communities or counties as the unit of enumeration creates difficulties since the effect of the supply of dental manpower in neighbouring communities is ignored.

Despite these problems and others not mentioned, it is felt for the reasons stated earlier that presentation of this material is justified as long as the necessary qualifications are kept in mind.

SUPPLY AND DISTRIBUTION OF DENTISTS AND DENTAL HYGIENISTS IN ONTARIO

1. Canadian Trends in Dentist Supply and Population, 1966 to 1976, 1971 to 1976

Dentist supply trends over time in one Canadian province should not be examined in isolation. Therefore, it is important to examine changes in Ontario's population and dentist supply in relation to other provinces. Table 1 indicates that the percentage growth of dentists in and within the indicated decade was much greater than population growth in all provinces. Ontario's relative increase in licensed dentists is less than the national average for both of the

stated time intervals. Ontario ranks third highest in population growth, but fourth for 1966-76 and seventh (tied) for 1971-76 in dentist growth. It is true that Ontario is better supplied with dentists than most other provinces and this should be considered in assessing relative changes. However, comparison of Ontario's experience with that of Alberta and British Columbia -- two provinces similarly well-supplied with dentists -- indicates that in both of these provinces, and especially British Columbia, dentist growth relative to population growth exceeds that in Ontario.

TABLE 1

GROWTH TRENDS IN THE NUMBER OF DENTISTS AND POPULATION IN ONTARIO
AND OTHER CANADIAN PROVINCES 1966, 1971 AND 1976*

PROVINCE	Number of Licenced D.D.S.			PERCENTAGE GROWTH			
				1966-76		1971-76	
	1966	1971	1976	Pop.	D.D.S.	Pop.	D.D.S.
				%	%	%	%
Newfoundland	51	61	103	13.1	102.0	6.5	68.9
Prince Edward Island	30	31	42	10.1	40.0	7.1	35.5
Nova Scotia	236	238	270	10.2	14.4	5.2	13.4
New Brunswick	131	137	164	10.5	25.2	7.1	19.7
Quebec	1549	1754	2117	7.6	36.7	3.7	20.7
Ontario	2732	3241	3877	17.9	41.9	7.2	19.6
Manitoba	295	315	375	7.2	27.1	3.8	19.0
Saskatchewan	220	227	279	-2.5	26.8	1.5	22.9
Alberta	503	616	817	27.2	62.4	14.2	32.6
British Columbia	785	1044	1443	29.0	83.8	11.7	38.2
Canada**	6532	7644	9487	14.6	45.2	6.8	23.8

* Source: Table 6.1. Canada Health Manpower Inventory 1977, Health Economics and Statistics Division, Health Programs Branch; Health and Welfare, Ottawa, Canada.

** Table 6.1 from the above source lists 8 dentists in the Yukon and 12 dentists in the Northwest Territories for 1976 and none in 1966 or 1971; however, it appears that there were 3 and 6 active licensed dentists in these two regions, respectively, in 1971.

2. Median Year and Distribution of Dentist Graduation

Table 2 is derived from the more extensive Appendix 4 examining the numbers of dentists and the distribution of their year of dental graduation -- a proxy for age -- in Ontario regionally.⁴ The overall median year of graduation for Ontario's dentists is 1965, just fourteen years ago. The medians for each of the regional planning areas are close to the overall provincial median; however, within planning areas a great deal of variation indicative of varying dentist age is obvious. For example, in the Central Regional Planning Area the median year of graduation for Dufferin County's dentists - 1973 - is very recent, but for the Muskoka District and Northumberland County the medians are 1957 and 1955 respectively. Within three of the remaining four regional planning areas similar but not quite so marked differences in median year of graduation are evident.

Table 3, also developed from Appendix 4, examines the percentage of dentists in the five regional planning areas graduating before 1940 and after 1969. One striking observation is the relatively large numbers (between about 35% and 40%) of all dentists in these areas who have graduated in 1970 or later. Just under three percent of dentists in one area to a high of just over seven percent in another area graduated before 1940.

⁴ The five regional planning areas of Ontario are shown in Figure 1.

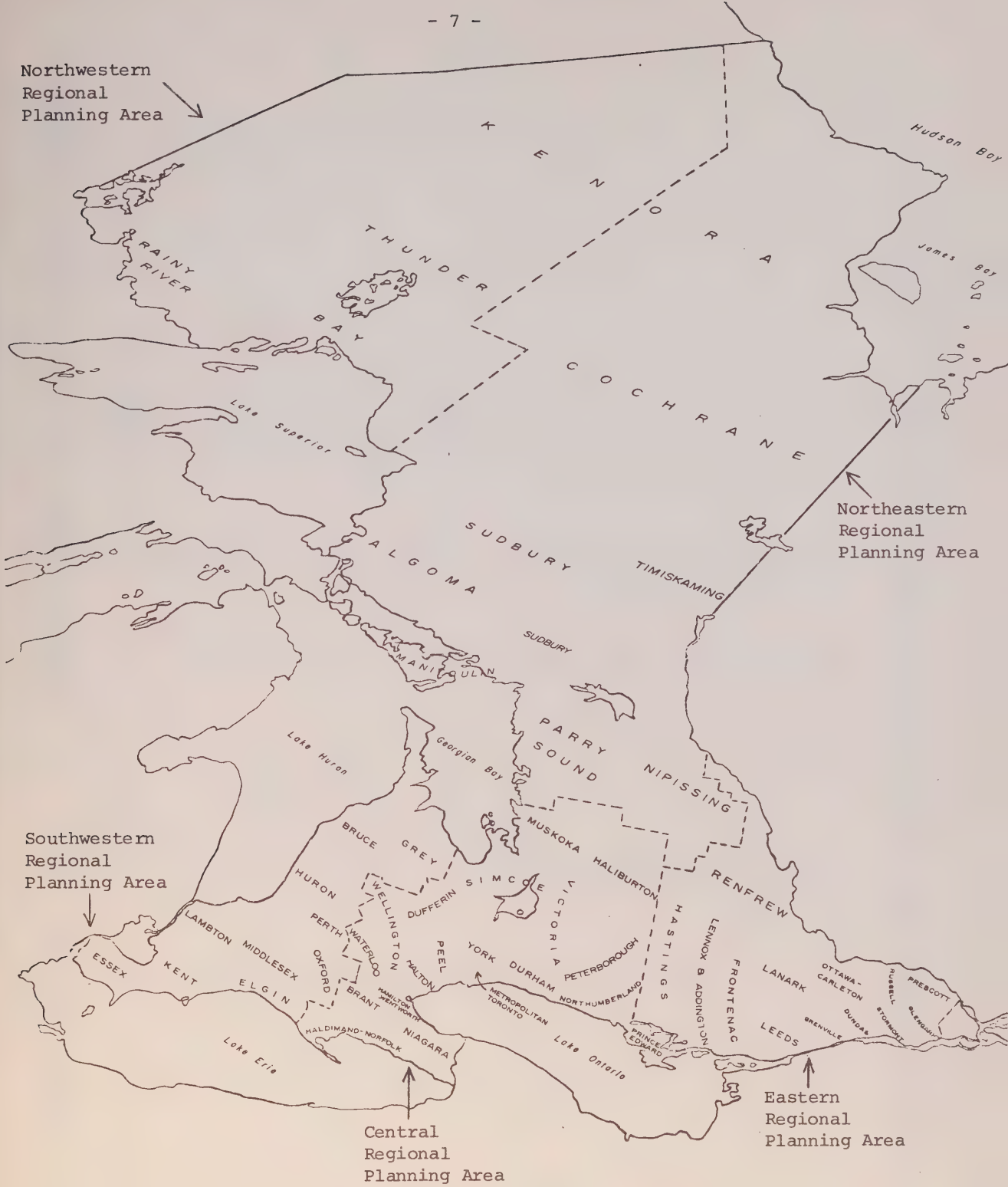


Figure 1. Regional Planning Areas of the Province of Ontario.

TABLE 2

Place	No. of Dentists (1)	Median Year of DDS Graduation (2)	Place	No. of Dentists (1)	Median Year of DDS Graduation (2)	Place	No. of Dentists (1)	Median Year of DDS Graduation (2)
CENTRAL REGIONAL PLANNING AREA	2,704	1965	EASTERN REGIONAL PLANNING AREA	531	1967	NORTHEASTERN REGIONAL PLANNING AREA	186	1966
Brant	37	1964	Frontenac	55	1967	Algoma	45	1965
Dufferin	13	1973	Hastings	48	1967	Cochran	27	1973
Durham	110	1969	Lanark	16	1969	Manitoulin	3	1975
Haldimand-Norfolk	28	1967	Leeds & Grenville	28	1965	Nipissing	30	1966
Haliburton	2	1966	Lennox & Addington	4	1968	Parry Sound	13	1965
Halton	119	1967	Ottawa-Carleton	303	1965	Sudbury (District)	3	1977
Hamilton-Wentworth	205	1964	Prescott & Russell	13	1974	Sudbury (Reg. Mun.)	56	1965
Muskoka	15	1957	Prince Edward	6	1950	Timiskaming	9	1961
Niagara	154	1965	Renfrew	34	1970			
Northumberland	19	1955	Stormont, Dundas & Glengarry	24	1964	NORTHWESTERN REGIONAL PLANNING AREA	85	1967
Peel	164	1969				Kenora	16	1969
Peterborough	44	1966	SOUTHWESTERN REGIONAL PLANNING AREA	564	1966	Rainy River	6	1966
Simcoe	86	1968	Bruce	17	1970	Thunder Bay	63	1965
Metropolitan Toronto	1,411	1963	Elgin	17	1971	PROVINCE OF ONTARIO	4,070	1965
Victoria	14	1965	Essex	134	1969			
Waterloo	136	1965	Grey	28	1965			
Wellington	57	1967	Huron	15	1970			
York	90	1968	Kent	36	1965			
			Lambton	42	1968			
			Middlesex	213	1965			
			Oxford	40	1966			
			Perth	22	1966			

(1) Includes all dentists listed with an Ontario address in the 1978 Royal College of Dental Surgeons of Ontario Membership List, including revisions and amendments up to August 17, 1978. Only one location per dentist has been counted, using the address provided in the membership list.

(2) Fifty percent of dentists graduated in this year or earlier. (Year of graduation provided by the Royal College of Dental Surgeons of Ontario Membership List.)

TABLE 3

DISTRIBUTION OF YEAR OF DENTIST GRADUATION
BY REGIONAL PLANNING AREA

Percentage Distribution of Dentists Graduating
in the Indicated Time Period

<u>Place</u>	<u>Before 1940</u>	<u>1970-1978</u>
	%	%
Province of Ontario	5.75	36.58
Central Regional Planning Area	5.99	34.84
Eastern Regional Planning Area	6.22	41.43
Southwestern Regional Planning Area	4.96	39.01
Northeastern Regional Planning Area	2.69	40.32
Northwestern Regional Planning Area	7.06	37.65

3. Trends in Net Growth of Dentists, 1962 to 1978

Table 4 summarizes data contained in the annual Proceedings of the Royal College of Dental Surgeons of Ontario regarding the number of licenses issued, and additions and deletions from the College register in three time periods between 1962 and 1978. The middle period, 1969 to 1973, represents the time during which the Faculty of Dentistry of the University of Western Ontario began graduating dentists, although in smaller numbers than at present. The last period, 1974-78, marks the start of the U.W.O. dental faculty's operation at full capacity, presumably 50 graduates per year.

The detailed information of Appendix 5 should be examined to explain particular trends observed in Table 4 and other year-to-year changes. The net growth in licensed dentists since 1969 was just over 130 dentists per year, on average, but this ranged from a low of 57 dentists in 1975 to a high of 298 in 1977 (Appendix 5). In the period prior to 1969 net growth averaged 67 dentists per year.

4. Certified Specialist Dentists and Licensed Dental Hygienists in Ontario in 1968, 1973 and 1978

As a summary of the more detailed data in Appendix 6, the numerical and percentage growth of specialists and dental hygienists in Ontario's five regional planning areas is indicated in Table 5. The total growth of dental specialists in Ontario is substantial, about 118% (or 225 specialists) between 1968 and 1978 and 39%

TABLE 4

ADDITIONS, DELETIONS AND NET GROWTH -- ROYAL COLLEGE OF
DENTAL SURGEONS REGISTER 1963-68, 1969-73 AND 1974-78

	Five Year Means		
	1963-68*	1969-73	1974-78
Total Additions	152	225	249
Addition Rate (%)***	5.49**	7.07	6.34
Total Deletions	85	93	118
Deletion Rate (%)***	3.39**	2.89	3.03
Net Growth	67	132	131
Net Growth Rate (%)***	2.10**	4.18	3.32
Range (%)	0.72 - 3.30	2.92 - 5.23	1.57 - 7.41

* Data unavailable for 1966

** Four year rate - data unavailable for 1966 and 1967

*** Defined in Appendix 5

(or 117 specialists) between 1973 and 1978. Examination of the numerical distribution of specialists among the five planning areas clearly shows that the major contributor to this growth is the Central Regional Planning Area which includes Metropolitan Toronto, Mississauga, Oakville, Burlington, Hamilton, Oshawa, Brantford, Kitchener-Waterloo, St. Catharines, Niagara Falls, etc. The Eastern and Southwestern areas, each with about 1.2 million people or just under one-quarter the population of the Central area, have only from nearly one-fifth to one-seventh as many specialists in 1978. The Northeastern and Northwestern areas have very few dental specialists, four and three respectively, in 1978. Even in the areas with more specialists, it is clear that they are mainly concentrated in one or two parts of these areas (see Appendix 6).

Regional differences in the supply of dental hygienists are also evident, but overall differences among planning areas are not so marked as with dental specialists (Table 5). However, the most striking thing about the dental hygienist figures is their very rapid growth regionally and provincially. Between 1968 and 1978 the number of licensed hygienists residing in Ontario grew by a factor of 3.9, or an average annual growth of 29% per year over the decade. Between 1973 and 1978 the average annual growth was very similar, 28% per year. Average percentage growth hides the real changes in absolute numbers; from 1968 to 1973, 192 more licensed dental hygienists resided in Ontario whereas between 1973 and 1978, this figure rose to 698 more.

TABLE 5

CERTIFIED SPECIALIST DENTISTS AND LICENSED DENTAL HYGIENISTS IN ONTARIO
IN 1968, 1973 and 1978 BY REGIONAL PLANNING AREA

Regional Planning Area	1978 Population	No. of Certified Specialist Dentists		(2) % Change in No. of Specialists		No. of Licensed Dental Hygienists		(3) % Change in No. of Dental Hygienists			
		(1)									
		1968	1973	1978	1968-78	1973-78	1968	1973	1968-78	1973-78	
Central	5,150,882	152	227	309	103.3	36.1	256	378	822	221.1	117.5
Eastern	1,162,740	19	28	44	131.6	57.1	17	42	141	729.4	235.7
Southwestern	1,263,417	16	39	56	250.0	43.6	23	51	147	539.1	188.2
Northeastern	533,612	3	3	4	33.3	33.3	8	18	49	512.5	172.2
Northwestern	198,441	1	2	3	200.0	50.0	2	9	37	1,750.0	311.1
ONTARIO TOTAL	8,309,092	191	299	416	117.8	39.1	306	498	1,196	290.8	140.2

(1) 1978 Assessed Population of Ontario: data provided by the Ontario Ministry of Treasury and Economics. Figures exclude residents of Canadian Forces bases at Kingston (Pittsburgh Tp.) and Petawawa (Eastern Regional Planning Area).

(2) Certified specialist dentists residing in Ontario as listed in the Royal College of Dental Surgeons of Ontario Membership Lists for June 1968, June 1973 (plus revisions and amendments to October 1973) and 1978 (plus revisions and amendments to December 1978). Figures exclude known Canadian Forces personnel.

(3) Licensed Dental Hygienists residing in Ontario as listed in the Royal College of Dental Surgeons of Ontario Membership Lists for June 1968, June 1973 and 1978 (plus revisions and amendments to December 1978). Figures exclude known Canadian Forces personnel.

Although in 1978 nearly 70% of dental hygienists (822 of 1,196) resided in the Central Regional Planning Area, the growth in each of the other planning areas between 1968-1978 and 1973-1978 has exceeded that in the Central area. Within each regional planning area there are differences in the supply of dental hygienists (see Appendix 6). Nevertheless, hygienists are more evenly distributed than dental specialists.

Table 6 displays the number of licensed dental specialists (including those residing outside Ontario) in each recognized specialty from 1968 to 1978. Over this entire period orthodontists have been the most numerous specialists, followed by oral surgeons, periodontists and paedodontists. Between 1973 and 1978 the number of oral surgeons has increased by 57.6%, followed by paedodontists (40.7%), periodontists (32.7%), and orthodontists (21.5%). The growth in total licensed dentists (19.7%) is just under one-half of total specialist growth (44.3%). About 6.5% of all licensed dentists were specialists in 1968 and this increased to 10.6% in 1978.

5. Licensure Outside Ontario

Table 7 gives the number of dentists, dental specialists and dental hygienists licensed with the R.C.D.S. in 1968, 1973 and 1978 who reside outside Ontario. In interpreting these data it should be remembered that Ontario dentists who are, for example, studying in the U.S.A. can drop their licenses until their graduate training is complete and then upon application become re-licensed. The number doing this is unknown; however, the tabled figures accordingly must understate

TABLE 6
TRENDS IN SPECIALIZATION BY SPECIALTY IN ONTARIO 1968-1978

Specialists Licensed in Ontario⁽¹⁾

Year	Public Health	Endo-dontics	Oral Pathology	Oral Radiology	Oral Surgery	Ortho-dontics	Paedo-dontics	Perio-dontics	Prosthodontics	Total Specialists	Total Lic. Dentists	Specialists as % of all Licensed Dentists
1968	8				44	91	16	35		194	2996	6.5
1969	9				47	98	18	35		207	3041	6.8
1970	13				49	109	22	43		236	3227	7.3
1971	15				51	113	23	46		248	3340*	7.4
1972	17				56	126	26	46		271	3461	7.8
1973	18	17	6		59	135	27	52		314	3573	8.8
1974	19	20	8		61	133	29	57		327	3625	9.0
1975	19	20	8		70	137	34	58		346	3801	9.1
1976	21	21	8		73	142	34	60		359	3915	9.2
1977	22	25	9	5	89	155	36	64	21	426	4204	10.1
1978	21	26	8	4	93	164	38	69	30	453	4278*	10.6
% Growth 1973-78	16.67	52.94	33.33	-	57.63	21.48	40.74	32.69	-	44.27	19.73	20.45

(1) Specialists: RCDS membership lists.

June, 1968
July, 1969
September, 1970,
1971
June, 1972
June, 1973 (including Oct. 1 notice of omissions)
July, 1974
July, 1975 (revised to Dec. '75)
1976 (revised to Dec. '76)
1977 (revised to Dec. '77)
1978 (revised to Dec. '78)

(2) Total licensed dentists figures from RCDS Proceedings 1968 - 1970, 1972 - 1977.

*1971 and 1978 figures based on RCDS membership lists for the respective year.

Note: figures include dentists practising out of province and Canadian Forces personnel.

TABLE 7

OUT-OF-PROVINCE DENTISTS, SPECIALISTS AND DENTAL HYGIENISTS
LICENSED IN ONTARIO IN 1968, 1973 AND 1978

<u>LOCATION</u>	<u>DENTISTS</u>						<u>DENTAL HYGIENISTS</u>		
	<u>Total Number D.D.S.</u>			<u>No. Who Are Specialists</u>			<u>NUMBER</u>		
	<u>1968</u>	<u>1973</u>	<u>1978</u>	<u>1968</u>	<u>1973</u>	<u>1978</u>	<u>1968</u>	<u>1973</u>	<u>1978</u>
<u>Other provinces</u>									
Quebec	2	35	127	0	3	20	5	5	12
Manitoba	1	2	3	0	1	1	1	1	1
Saskatchewan	2	5	2	0	0	1	1	1	2
Alberta	2	3	7	0	0	1	0	2	8
British Columbia	3	4	11	1	0	1	4	4	3
Nova Scotia	2	8	6	0	0	1	3	1	1
N.W. Territories	1	5	6	0	1	1	0	0	0
TOTALS	13	62	162	1	5	26	14	14	27
Canadian Armed Forces	12	18	20	0	1	1	0	2	2
<u>Outside Canada</u>									
Europe	0	4	4	0	0	0	0	0	0
England	1	2	3	0	1	1	0	0	0
U.S.A.	7	16	22	1	5	2	7	9	9
Caribbean	4	7	2	1	0	0	0	0	0
Far East	0	1	3	0	0	0	0	0	0
GRAND TOTALS	37	110	216	3	12	30	21	25	38

the actual situation. In view of the general growth in supply of dentists Table 7 contains no surprises. Changes in out-of-province licensures are not remarkable except for the large increase in the number of dentists and dental specialists residing in Quebec who are now licensed in Ontario.

6. Regional Supply and Distribution of Non-Specialist Dentists in Ontario

Table 8 displays the relative percentages of non-specialist dentists and population and the ratio of these two percentages for each regional planning area in 1978. The ratios indicate that the supply of non-specialist dentists in the Central Regional Planning Area exceeds its population by 7%, while in the other four planning areas the relative supply of these dentists is less than the relative supply of population. In the Northeastern area there are 22% fewer dentists; in the other three areas there are 6% to 8% fewer.

The overall figures of Table 8 mask some large differences within each regional planning area (see Appendix 7). For example, in the relatively best-supplied Central area the relative supply of dentists in Metropolitan Toronto exceeds its population by 29%, whereas in Haliburton and Northumberland Counties the supply of dentists is 62% and 36% lower, respectively. In the relatively worst-supplied Northeastern area, the Parry Sound District, nevertheless, had 13% relatively more dentists but the Cochrane and Timiskaming parts of this area had 30% and 45%, respectively, fewer dentists relative to population size.

Among Ontario's 49 counties, districts and regional municipalities, four matched their relative supply of population with dentists and six had relatively more dentists than population. However, the remaining 39 had fewer dentists than population size warranted (Appendix 7). Based on a simple criterion of equivalence in relative supply of dentists and population, there are many regional disparities in the distribution of non-specialist dentists in Ontario.

TABLE 8

1978 RELATIVE SUPPLY OF NON-SPECIALIST DENTISTS AND
POPULATION IN ONTARIO'S REGIONAL PLANNING AREAS

Area	1978 Relative % Ontario Total		% DDS / % Population Ratio
	Dentists	Population	
	%	%	
Central Regional Planning Area	65.66	61.69	1.06
Eastern Regional Planning Area	13.17	13.99	.94
Southwestern Regional Planning Area	13.94	15.21	.92
Northeastern Regional Planning Area	4.98	6.42	.78
Northwestern Regional Planning Area	2.25	2.39	.94

Table 9 describes the regional supply of non-specialist dentists relative to population using population per dentist as a crude indicator. Changes in relative supply over time using this index could, of course, arise from differing shifts in either population or dentist numbers, or both. However, interest here focuses strictly on changes in the relative supply of dentists, whatever the cause, in different geographic locations between 1968 and 1978.

In Ontario there were 2,613 persons per non-specialist dentist in 1968 and 2,285 persons per non-specialist dentist in 1978, an improvement in relative supply of 12.6%. The relative supply of dentists varies among regional planning areas and, more noticeably, within each planning area.

Examination of the five regional planning areas indicates that the Central area is much better supplied with dentists (2,344/DDS in 1968 and 2,157/DDS in 1978) than the other four areas (three of which were about 3,000/DDS in 1968 and 2,450/DDS in 1978). The worst supplied area is the Northeastern Regional Planning Area with 3,809/DDS in 1968 and 2,948/DDS in 1978. Over the ten-year period all regional planning areas demonstrate improvements in relative supply of dentists -- about 17% better for the Northwestern area, 8% better for the Central area and about 20% better for the remaining three areas. Thus, although the Central area is much better supplied with dentists than the other areas, the relative improvements in supply are more marked in the other four areas. Geographically these areas are very large; it is important to review dentist supply within each area.

- 20 -

- 20 -

- 20 -

- 20 -

- 20 -

The eighteen counties and regional municipalities of the Central Regional Planning Area display a mixed pattern of overall improved relative supply of dentists. The best supplied location, Metropolitan Toronto, with 1,771 persons per non-specialist dentist in 1978, has changed only modestly since 1968 (4.4% better between 1968 and 1978 and 7.2% from 1973 to 1978). Durham, and Haliburton (which had only 2 dentists in 1978) showed the largest improvement in relative supply of dentists between 1968 and 1978, 33% and 36% respectively, while Dufferin (13% worse) and Metropolitan Toronto (4.4% better) showed the least improvement. Seven of the eighteen locations in this area displayed an improved relative supply in one of the indicated time periods but a worse supply in the other. Surprisingly, in six locations the relative supply of dentists has worsened in the 1973-78 period.

In the Eastern Regional Planning Area, Ottawa-Carleton has the best relative supply of non-specialist dentists with 1,989 persons per dentist in 1978. Improvements in relative supply between 1968 and 1978 are most marked in Hastings and Prescott & Russell, 37% and 72% respectively. The relative supply worsened in both Leeds & Grenville and (especially) Lennox & Addington, although this latter situation involves very few dentists (6 in 1868 and 4 in 1978).

Middlesex County leads the Southwestern Regional Planning Area in non-specialist dentist supply with 1,805 persons per dentist in 1978, and in improved relative supply, 29% better between 1968 and 1978. Grey County, although improved, has changed the least. The situation

between 1968 and 1978 has worsened in two of this area's ten locations, i.e., Bruce and Elgin Counties.

In the Northeastern Regional Planning Area, Parry Sound displays the best relative supply of dentists, 2,063 persons per dentist in 1978, and nearly the greatest improvement over the decade, 36%. The relative dentist supply in Sudbury Regional Municipality has improved by 37% with the surrounding, less populous Sudbury District declining in relative supply by a similar amount. All other parts of this area except Timiskaming display fairly large relative improvements in supply between 1968 and 1978, although as mentioned earlier the Northeastern Regional Planning Area has the lowest supply of dentists relative to Population in Ontario.

The Kenora district of the Northwestern Regional Planning Area has 2,285 persons per dentist. Although few dentists are involved, Rainy River has both the poorest supply of dentists and the largest relative improvement in supply (35% from 1968 to 1978) when compared to the other two districts in this planning area.

7. Dentist Supply Relative to Community Population Size

Table 10 is derived from Appendices 8 through 11. The numerical supply of non-specialist dentists and the relative supply as indicated by the population per dentist ratio has improved in all population categories between 1968 and 1978.⁵ Between 1968 and 1978 the greatest

⁵ Note that the population data of Table 10 for communities with 1978 populations of 10,000 and under refer only to those communities having dentists in 1968 and/or 1973 and/or 1978.

TABLE 10

SUMMARY: POPULATION PER NON-SPECIALIST DENTIST IN 1968, 1973 AND 1978
IN ONTARIO MUNICIPALITIES GROUPED BY POPULATION SIZE CATEGORY

Municipal Population Category (1978)	1978 Total Population	No. of Non-Specialist Dentists			Population per Dentist			% Change in Population per Dentist		1978 Relative % of Ontario Total Dentists Population	
		1968	1973	1978	1968	1973	1978	1968-1978	1973-1978		
> 250,000 (N=5)	3,265,645	1,434	1,604	1,858	1,950	1,939	1,758	- 9.85	- 9.33	51.09	39.30
100,001-250,000 (N=7)	914,106	265	336	413	2,666	2,416	2,213	-16.69	- 8.40	11.35	11.00
50,001-100,000 (N=15)	1,010,034	307	374	436	2,636	2,429	2,317	-12.10	- 4.61	11.99	12.16
25,001-50,000 (N=17)	574,706	173	194	241	2,683	2,664	2,385	-11.11	-10.47	6.63	6.92
10,001-25,000 (N=58)	889,293	213	259	318	3,429	3,038	2,796	-18.46	- 7.97	8.74	10.70
5,001-10,000 (N=56) *	398,585	113	137	176						4.84	4.80
≤ 5,000 (N=156) *	338,258	137	182	195						5.36	4.07
TOTAL (N=314)	7,390,627	2,642	3,086	3,637						100.00	88.95
PROVINCE OF ONTARIO	8,309,092	2,642	3,086	3,637	2,613	2,474	2,285	-12.55	- 7.64	100.00	100.00

* N refers only to municipalities that have or had dentists in 1968, 1973 and/or 1978.

percentage improvement (18.5%) in relative supply of dentists occurred in the 58 communities between 10,001 and 25,000 in population; the least relative improvement (9.9%) occurred in the five largest municipalities over 250,000 in size. In 1978, however, these same five municipalities had 51% of the non-specialist dentists but only 39% of the population.

The use of these municipal population categories is somewhat deceptive since municipal boundaries often ignore the built-up population areas adjacent to many communities and the well-established communication links between urban centres and their surrounding areas. To overcome these problems it is convenient to examine dentist supply according to the aggregated urban areas developed by Statistics Canada for Census purposes. Table 11 (derived from Appendices 12 and 13) indicates that about 75% of Ontario's population and 84% of its dentists reside in such aggregated areas. As anticipated, the discrepancy in 1978 between the relative supply of dentists and population in the largest municipalities is narrowed. Nearly 69% of the dentists and 61% of the population live in areas over 250,000 in population. For the other aggregated population size categories, the relative population size and the relative numbers of dentists (non-specialists) are quite closely matched. Again, for all categories there has been an improvement in the relative supply of dentists between 1968 and 1978 with the community population designation between 10,001 and 25,000 showing the least improvement.

TABLE 11

SUMMARY: POPULATION PER NON-SPECIALIST DENTIST IN 1968, 1973 AND 1978
IN AGGREGATED URBAN AREAS* OF ONTARIO, GROUPED BY POPULATION SIZE CATEGORY

Municipal Population	1978 Population	No. of Non-Specialist Dentists 1968 1973 1978	Population per Dentist 1968 1973 1978	% Change in Population per Dentist 1968-1978 1973-1978	1978 Relative % of Ontario Total Dentists Population
CMAs Population >250,000 (N=7)	5,057,490	1,829 2,126 2,497	2,279 2,202 2,025	-11.15 - 8.04	68.66 60.87
CMAs Population 100,001-250,000 (N=3)	416,521	106 139 170	3,278 2,765 2,450	-25.26 -11.39	4.67 5.01
CAs' Population 25,001-100,000 (N=11)	670,147	238 270 321	2,387 2,237 2,088	-12.53 - 6.66	8.83 8.07
CAs Population 10,001-25,000 (N=9)	119,685	42 43 51	2,483 2,580 2,347	- 5.48 - 9.03	1.40 1.44
CAs Population ≤10,000 (N=2)	17,001	3 5 7	4,676 3,135 2,429	-48.05 -22.52	0.19 0.20
TOTAL CMAs and CAs	6,280,844	2,218 2,583 3,046	2,346 2,244 2,062	-12.11 - 8.11	83.75 75.59
PROVINCE OF ONTARIO	8,309,092	2,642 3,086 3,637	2,613 2,474 2,285	-12.55 - 7.64	100.00 100.00

* Census Metropolitan Areas (CMAs) and Census Agglomerations (CAs). For definitions, see Appendix 1.

8. Communities Without Dentists

Table 12 displays the number and population categories of Ontario towns and villages⁶ that did not have resident dentists as of December 1978 and were 11 kilometres (ca. 7 miles) or more from a community with one or more dentists. Appendix 14 lists communities without dentists and their populations, along with actual road distance to and name of the nearest community with a dentist. This list can be used to geographically locate places without dentists and, importantly, to note the extra service burden required of the communities with dentists, especially where these centres may potentially serve several communities without dentists. The actual road conditions, common travel and dentist utilization patterns of persons in the indicated communities are not known.

Table 12 indicates that 46 (25 + 21) of the 67 communities without dentists are 20 kilometres (12.5 miles) or less from the nearest dentist and that 14 of these 46 communities are greater than 1,000 in population. More seriously, there are 8 (4 + 4) communities 31 kilometres (19.4 miles) or more from a dentist, and 4 of the 8 have populations greater than 1,000 (2 of these greater than 2,000).

⁶ The 1978 Ontario Municipal Directory was used to identify these towns and villages, i.e., only incorporated municipalities were taken into consideration.

Because of the sometimes transitory nature of dentist supply in small communities, the past history of the 67 communities without dentists was examined. Table 13 is derived from Table 12 by considering only those communities without dentists in 1978 that were also without dentists in 1968 and 1973. Such communities are indicated by name in Appendix 14. It was found that 5 of the 8 places 31 kilometres or more from a dentist also did not have dentists in 1968 and 1973. Two of the 4 communities having populations greater than 1,000 and without dentists in 1978 also lacked a resident dentist in both 1968 and 1973.

TABLE 12
NUMBER OF TOWNS AND VILLAGES¹ WITHOUT A DENTIST IN 1978 BY
POPULATION SIZE AND DISTANCE FROM NEAREST COMMUNITY WITH A DENTIST

Distance (km) ² from nearest dentist	Population Size				Total
	500 or less	501 - 1,000	1,001 - 2,000	Over 2,000	
11 - 15	8	10	7	0	25
16 - 20	3	11	7	0	21
21 - 25	3	6	1	0	10
26 - 30	1	1	1	0	3
31 - 40	3	0	1	0	4
41 and over	1	0	1	2	4
Total	19	28	18	2	67 ³

¹ Only those communities designated as towns and villages by the Ontario Ministry of Treasury and Economics (1978) are included.

² 1 mile = 1.6 kilometres.

³ In addition there were 27 places without dentists in 1978 that are less than 11 kilometres from a community with a dentist(s).

TABLE 13¹
NUMBER OF TOWNS AND VILLAGES¹ WITHOUT A DENTIST IN
1968, 1973 AND 1978 BY POPULATION SIZE AND DISTANCE
FROM NEAREST COMMUNITY WITH A DENTIST

Distance (km) ² from nearest dentist	Population Size				Total
	500 or less	501 - 1,000	1,001 - 2,000	Over 2,000	
11 - 15	7	8	0	0	15
16 - 20	3	10	4	0	17
21 - 25	3	3	0	0	6
26 - 30	1	0	0	0	1
31 - 40	2	0	1	0	3
41 and over	1	0	0	1	2
Total	17	21	5	1	44 ³

¹ Only those communities designated as towns and villages by the Ontario Ministry of Treasury and Economics (1978) are included.

² 1 mile = 1.6 kilometres.

³ In addition there were 21 places without dentists in 1968, 1973 and 1978 that are less than 11 kilometres from a community with a dentist(s).

A P P E N D I C E S

APPENDIX 1

DATA COMPILATION AND SOURCES

(a) Enumeration of Dentists and Dental Hygienists

The enumeration of dentists and dental hygienists in Ontario was based on membership lists of the Royal College of Dental Surgeons of Ontario.¹ These lists, issued annually, are comprehensive registers of all dentists and dental hygienists licensed to practise in Ontario in a given year. For each dentist, information is provided as to name, address (which, with some exceptions, refers to the place of work), and year of graduation from dental school with the D.D.S. degree. Additional listings comprise dentists who have been certified by the R.C.D.S. in each of the nine recognized specialties, and dentists licensed in Ontario but currently located outside this province. (The latter two groups are also included in the first, comprehensive list.) In the case of dental hygienists, the R.C.D.S. lists provide the name, address (usually the place of residence) and year of graduation in dental hygiene for each licensee.

For the purposes of this report, "non-specialist" dentists are those not listed among certified specialists and those, based on the listed address and/or to the knowledge of the principal author, not known to be Canadian Forces dental personnel. "Specialist" dentists are those listed by the R.C.D.S. as certified in each particular specialty area. It should be noted that "non-specialists" may or may

¹ The following membership lists of the Royal College of Dental Surgeons of Ontario were employed:

- (a) Membership List, 1978 plus bulletins issued by the R.C.D.S. containing revisions and amendments to December 1978.
- (b) Membership List, June 1973 plus revisions and amendments to October 1973.
- (c) Membership List, June 1968.

not practise general dentistry: this category of necessity includes some dentists primarily engaged in other areas, e.g., post-secondary education, research, public health. With the exception of Tables 1, 4, 6, 7, and Appendix 5, only those dentists and dental hygienists for whom the R.C.D.S. lists indicate an Ontario address were included in the present compilations.

The geographical mapping of dentists and dental hygienists for this report must be qualified in two respects. First, by allowing only one location per individual (the town or city indicated in the R.C.D.S. membership lists) the actual distribution of dental care services is somewhat underestimated, since some individuals practise in more than one place of work. Second, as alluded to above, the impossibility of discriminating between individuals in dental practice and those not directly providing dental care to the public, probably overrepresents the supply of dental care services in Ontario.

(b) Compilation of Population Data

The geographical divisions and subdivisions of Ontario referred to in this report are drawn from the 1977-78 Municipal Directory.¹ Thus, the status and boundaries of regional planning areas, counties, cities, etc. are those in effect in 1978 as recognized by the Government of Ontario. The considerable extent of local reorganization in Ontario over the past decade (e.g., creation of regional municipalities,

¹ Ontario, Ministry of Treasury, Economics and Intergovernmental Affairs: 1977-78 Municipal Directory. (Toronto: The Queen's Printer for Ontario, 1977)

amalgamation and annexation of communities) presented problems in comparability of 1968, 1973 and 1978 population data. For this reason, 1978 was taken as the base year and population data for 1968 and 1973 were adjusted to approximate as accurately as possible what they would have been in terms of 1978 boundaries.² For example, the Regional Municipality of Haldimand-Norfolk was incorporated in 1974, representing the former counties of Haldimand and Norfolk. In this comparatively straightforward example, 1968 and 1973 population figures for Haldimand-Norfolk were obtained by summing the total population figures for the (then) two separate counties. Some error -- its degree unknown -- was unavoidable in cases where a former municipality (e.g., a township) was split, with portions redesignated as parts of two or more redefined municipalities. In such instances, its population was fractionated in proportions approximately corresponding to geographical land area, and the resulting numbers allocated to the new designations. Detailed information regarding adjustments to population figures due to municipal reorganization is on file with the Department of Community Dentistry, Faculty of Dentistry, University of Toronto.

In this report, local municipalities (i.e., cities, towns, villages and townships) have been categorized on the basis of 1978 population and identified within their respective county or district or

² A comprehensive source documenting such changes was not available at the time of preparation of this report. Ontario Municipal Directories for the years 1968 through 1978 were consulted, along with various maps of Ontario published by the Surveys and Mapping Branch, Ontario Ministry of Natural Resources. However, most of the detailed information on this matter was provided by the Library Services Branch, Ontario Ministry of Treasury, Economics and Intergovernmental Affairs. The assistance of the director and staff of the Library Services Branch, especially Ms. V. Harper, is gratefully acknowledged.

regional municipality designations.³ Certain community names do not appear in these tabulations due to a number of factors. Each dentist's location was determined on the basis of his or her postal address; postal community names (and other place names in popular use) do not always correspond with municipal designations. Such discrepancies are usually due to the historical occurrence of changes in municipal status, e.g., amalgamations, annexations, dissolutions. (See Appendix 2 for a listing of place names still in popular use and their corresponding Ontario Municipal Directory designations.) In addition, with the exception of the towns and villages shown in Appendix 14, tabulations of municipalities with 1978 populations under 10,000 include only those in which a dentist was located in 1978: a complete enumeration of all such municipalities would have been of unmanageable volume.

The sources consulted for 1968 and 1973 population data were the Ontario Municipal Directories for 1969 and 1974 respectively.⁴ These directories provide the populations of all Ontario municipalities, enumerated in the fall of each year for municipal assessment purposes. Included in the enumerations are all permanent residents of Ontario except those who reside in provincial institutions, defence establishments and on Indian Reserves.

³ Although counties, districts and regional municipalities differ in terms of political and administrative functions, they are comparable as upper-tier territorial divisions of the Province of Ontario.

⁴ Municipal Finance Branch, Ontario Department of Municipal Affairs: 1969 Municipal Directory. (Toronto: The Queen's Printer for Ontario, 1969)
Ministry of Treasury, Economics and Intergovernmental Affairs: 1974 Municipal Directory (Toronto: The Queen's Printer for Ontario, 1974)

For 1978, population figures were obtained from the Central Statistical Services branch of the Ontario Ministry of Treasury and Economics. These figures represent Ontario's population as assessed in the fall of 1978, and essentially serve to update the 1977-78 Municipal Directory. All permanent residents of Ontario are included, but unlike the 1968 and 1973 assessments the 1978 figures include long-term residents of provincial institutions and those residing on Indian Reserves and Canadian Forces Bases. However, separate assessments for the resident populations of Canadian Forces bases at Kingston (Pittsburgh Township) and Petawawa were provided. In this report total population figures for the respective municipalities were reduced accordingly. This change reduced the populations of Frontenac and Renfrew Counties and ultimately for the Province of Ontario. The 1978 assessed total population for Ontario was 8,318,933, whereas the working total employed herein was 8,309,092.

(c) Aggregated Urban Areas

The aggregated urban areas considered in Table 11 and Appendices 12 and 13 were taken from the 1976 Census of Canada.⁵ They are of two types, Census Metropolitan Areas (CMAs) and Census Agglomerations

⁵ Statistics Canada: Population: Geographic Distributions. Municipalities, Census Metropolitan Areas and Census Agglomerations. Vol. 1, 1976 Census of Canada. (Ottawa: Minister of Supply and Services, 1977)

(CAs), definitions of which follow:

Census Metropolitan Areas

"The main labour market area of an urbanized core (or continuous built-up area) having 100,000 or more population. CMAs are created by Statistics Canada and are usually known by the name of their largest city. They contain whole municipalities (or census subdivisions). CMAs are comprised of (1) municipalities completely or partly inside the urbanized core, and (2) other municipalities, if (a) at least 40% of the employed labour force living in the municipality works in the urbanized core, or (b) at least 25% of the employed labour force working in the municipality lives in the urbanized core."⁶

Census Agglomerations

"A geostatistical area created by Statistics Canada comprised of at least two adjacent municipal entities. These entities must be at least partly urban and belong to an urbanized core having a population of 2,000 or more. The urbanized core includes a largest city and remainder, each with a population of 1,000 or more, and has a population density of at least 1,000 per square mile (386 per square km). CAs with an urbanized core of 100,000 or more (based on previous census figures) are called census metropolitan areas."⁷

While the municipal compositions of CMAs and CAs were drawn from the 1976 Census of Canada, the corresponding population data were derived from the Ontario municipal assessment figures previously cited.

⁶ Statistics Canada: Population: Geographic Distributions. Municipalities, Census Metropolitan Areas and Census Agglomerations. Vol. 1, 1976 Census of Canada. (Ottawa: Minister of Supply and Services, 1977) p. vi.

⁷ Ibid., p. vii.

1978 ONTARIO MUNICIPAL DIRECTORY DESIGNATIONS*
FOR PLACE NAMES STILL IN USE

<u>Place</u> **		<u>O.M.D. Designation</u>
<u>Algoma</u>	Wawa	Michipicoten Tp.
<u>Bruce</u>	Tobermory	St. Edmund's Tp.
<u>Cochrane</u>	Ansonville	Iroquois Falls
	Schumacher	Timmins
	South Porcupine	Timmins
<u>Durham</u>	Bay Ridges	Pickering
	Beaverton	Brock Tp.
	Bowmanville	Newcastle
	Cannington	Brock Tp.
	Orono	Newcastle
	Port Perry	Scugog Tp.
	Uxbridge	Uxbridge Tp.
<u>Essex</u>	Emeryville	Maidstone Tp.
<u>Frontenac</u>	Sharbot Lake	Oso Tp.
<u>Hamilton-Wentworth</u>	Binbrook	Glanbrook Tp
	Mt. Hope	Glanbrook Tp.
	Waterdown	Flamborough Tp.
	Winona	Stoney Creek
<u>Leeds & Grenville</u>	Elgin	South Crosby Tp.
	Lansdowne	Front of Leeds & Lansdowne Tp.
<u>Grey</u>	Kimberley	Euphrasia Tp
<u>Haldimand-Norfolk</u>	Caledonia	Haldimand
	Cayuga	Haldimand
	Delhi	Delhi Tp.
	Hagersville	Haldimand
	Port Dover	Nanticoke
	Port Rowan	Norfolk Tp.
	Waterford	Nanticoke

* As used in the tables describing historical trends in dental manpower in Ontario.

** Only those places that had one or more non-specialist dentist in 1968 and/or 1973 and/or 1978 are included. It is by no means a complete listing of municipal name changes and reorganization.

<u>Place</u> **		<u>O.M.D. Designation</u>
<u>Oxford</u>	Norwich Tavistock Thamesford	Norwich Tp. E. Zorra-Tavistock Tp. Zorra Tp.
<u>Parry Sound</u>	Callander McKellar	N. Himsworth Tp. McKellar Tp.
<u>Peel</u>	Bolton Bramalea Malton Pt. Credit Streetsville Clarkson Cooksville Lorne Park Caledon East Snelgrove	Caledon Brampton Mississauga Mississauga Mississauga Mississauga Mississauga Mississauga Caledon Brampton
<u>Perth</u>	Bornholm	Logan Tp.
<u>Peterborough</u>	Bridgenorth	Smith Tp.
<u>Prescott & Russell</u>	Embrun	Russell Tp.
<u>Prince Edward</u>	Milford	S. Marysburgh Tp.
<u>Renfrew</u>	Palmer Rapids	Raglan Tp.
<u>Simcoe</u>	Brechin Perkensfield Stroud Washago	Mara Tp. Tiny Tp. Innisfil Tp. Orillia Tp.
<u>Stormont, Dundas & Glengarry</u>	Avonmore	Roxborough Tp.
<u>Sudbury R.M.</u>	Azilda Chelmsford Coniston Copper Cliff Hanmer Levack Lively	Rayside-Balfour Rayside-Balfour Nickel Centre Sudbury Valley East Onaping Falls Walden
<u>Sudbury Dist.</u>	Noelville	United Counties of Cosby et al Tp.
<u>Victoria</u>	Coboconk Kinmount	Bexley & Somerville Tp. Somerville Tp.

<u>Place</u> **		<u>O.M.D. Designation</u>
<u>Haliburton</u>	Haliburton Minden	Dysart, et al Tp. Anson, Hindon + Minden Tp.
<u>Halton</u>	Acton Georgetown Bronte Kilbride	Halton Hills Halton Hills Oakville Burlington
<u>Hastings</u>	Foxboro	Thurlow Tp.
<u>Kenora</u>	Ear Falls Ignace Red Lake	Ear Falls Tp. Ignace Tp. Red Lake Tp.
<u>Lambton</u>	Corunna	Moore Tp.
<u>Lennox & Addington</u>	Amherstview	Ernestown Tp.
<u>Manitoulin</u>	Mindemoya	Carnarvon Tp.
<u>Middlesex</u>	Dorchester Komoka Mount Brydges	Dorchester, N. Tp. Lobo Tp. Caradoc Tp.
<u>Muskoka</u>	Bala Kilworthy Port Carling Honey Harbour	Muskoka Lakes Tp. Gravenhurst Muskoka Lakes Tp. Georgian Bay Tp.
<u>Niagara</u>	Beamsville Fonthill Ridgeway Stevensville Smithville Wellandport	Lincoln Pelham Fort Erie Fort Erie W. Lincoln Tp. W. Lincoln Tp.
<u>Northumberland</u>	Warkworth	Percy Tp.
<u>Ottawa-Carleton</u>	Carp Eastview Hazeldean Metcalf Kenmore Manotick Orleans Stittsville Richmond	West Carleton Tp. Vanier Kanata Osgoode Tp. Osgoode Tp. Osgoode Tp. Gloucester Tp. Goulbourn Tp. Goulbourn Tp.

Place **

O.M.D. Designation

Waterloo

Ayr
Baden
Breslau
Conestogo
Elmira
New Hamburg

Dumfries, N. Tp.
Wilmot Tp.
Woolwich Tp.
Woolwich Tp.
Woolwich Tp.
Wilmot Tp.

Wellington

Hillsburgh
Rockwood

Erin Tp.
Eramosa Tp.

York

Concord
Keswick
King City
Kleinburg
Maple
Nobleton
Schomberg
Stouffville
Sutton West
Thornhill
Unionville
Woodbridge

Vaughan
Georgina Tp.
King Tp.
Vaughan
Vaughan
King Tp.
King Tp.
Whitchurch-Stouffville
Georgina Tp.
Markham
Markham
Vaughan

POPULATION PER LICENSED DENTIST* IN ONTARIO COUNTIES, DISTRICTS AND
REGIONAL MUNICIPALITIES IN 1968, 1973 AND 1978

Place	Population		1978**	Number of Licensed Dentists		Population per Dentist			
	1968	1973		1968	1973	1968	1973		
PROVINCE OF ONTARIO	6,904,770	7,636,159	8,318,933	2,845	3,400	4,070	2,427	2,246	2,044
CENTRAL REGIONAL PLANNING AREA	4,174,689	4,703,321	5,150,882	1,941	2,312	2,704	2,151	2,034	2,532
Brant	88,032	89,193	97,667	27	31	37	3,260	2,877	2,640
Dufferin	18,401	23,709	30,078	9	7	13	2,045	3,387	2,314
Durham	200,279	220,187	265,538	53	73	110	3,779	3,016	2,414
Haldimand- Norfolk	81,689	83,055	86,668	24	24	28	3,404	3,461	3,095
Haliburton	8,377	9,298	10,681	1	3	2	8,377	3,099	5,341
Halton	168,786	202,271	234,892	67	94	119	2,519	2,152	1,974
Hamilton- Wentworth	379,277	396,734	407,486	166	179	205	2,285	2,216	1,988
Muskoka	25,703	30,815	35,925	10	12	15	2,570	2,568	2,395
Niagara	331,443	345,339	367,317	113	133	154	2,933	2,597	2,385
Northumberland	55,561	58,585	63,795	13	21	19	4,274	2,790	3,358
Peel	209,887	302,675	421,618	58	128	164	3,619	2,365	2,571
Peterborough	84,529	90,625	98,850	34	47	45	2,486	1,928	2,197

* Includes specialists, non-specialists and Canadian Forces dentists.

** 1978 populations for Frontenac and Renfrew Counties include Canadian Forces Bases populations at Kingston (4,703) and Petawawa (5,768). These inclusions are reflected in 1978 total population figures for the Eastern Regional Planning Area and the Province of Ontario.

Place	Population		Number of Licensed Dentists		Population per Dentist	
	1968	1973	1968	1973	1968	1973
Simcoe	144,427	172,659		73	2,626	2,365
Metropolitan Toronto	1,874,605	2,081,724	1,127	1,244	1,663	1,673
Victoria	32,861	36,980	9	14	3,651	2,641
Waterloo	228,299	263,407	92	117	2,481	2,251
Wellington	97,755	113,454	35	41	2,793	2,767
York	144,778	182,611	48	71	3,016	2,572
EASTERN REGIONAL PLANNING AREA						
	970,735	1,054,085	346	429	2,806	2,457
Frontenac	89,047	100,191	41	44	2,172	2,277
Hastings	88,301	94,853	25	39	3,532	2,432
Lanark	38,682	40,253	12	13	3,223	3,096
Leeds & Grenville	71,570	73,460	26	26	2,753	2,825
Lennox & Addington	25,327	29,719	6	6	4,221	4,953
Ottawa- Carleton	426,550	477,348	181	239	2,357	1,997
Prescott & Russell	42,417	44,595	3	7	14,139	6,371
Prince Edward	19,543	20,194	4	5	4,886	4,039
Renfrew	76,255	79,686	25	29	3,050	2,748
Stormont, Dundas & Glengarry	93,043	93,786	23	21	4,045	4,466

Place	Population		Number of Licensed Dentists		Population per Dentist	
	1968	1973	1968	1973	1968	1973
SOUTHWESTERN REGIONAL PLANNING AREA						
	1,094,981	1,179,247	1,263,417	365	433	564
Bruce	41,307	48,710	58,121	14	13	17
Elgin	59,543	65,159	69,235	18	19	17
Essex	284,021	306,465	314,102	88	99	134
Grey	63,001	67,524	72,576	22	26	28
Huron	50,010	51,850	55,846	12	15	15
Kent	95,346	98,620	106,505	26	28	36
Lambton	107,878	108,552	120,026	33	39	42
Middlesex	256,849	291,680	315,945	110	143	213
Oxford	76,370	78,263	84,539	25	28	40
Perth	60,656	62,424	66,522	17	23	22
NORTHEASTERN REGIONAL PLANNING AREA						
	479,995	511,622	533,612	129	147	186
Algoma	103,292	107,722	116,688	36	33	45
Cochrane	77,963	82,567	86,886	19	20	27
Manitoulin	6,831	7,004	7,180	2	3	3
Nipissing	67,999	69,335	74,160	20	27	30
Parry Sound	22,734	24,437	26,814	7	8	13
Sudbury (District)	18,504	18,582	19,193	4	4	3
Sudbury (Reg. Mun.)	142,540	161,950	163,651	32	44	56
Timiskaming	40,132	40,025	39,040	9	8	9

<u>place</u>	<u>Population</u>		<u>Number of Licensed Dentists</u>		<u>Population per Dentist</u>				
	<u>1968</u>	<u>1973</u>	<u>1968</u>	<u>1973</u>	<u>1968</u>	<u>1973</u>			
NORTHWESTERN REGIONAL PLANNING AREA	184,370	187,884	198,441	64	79	85	2,881	2,378	2,335
Kenora	32,290	34,778	36,560	12	12	16	2,691	2,898	2,285
Rainy River	21,793	20,893	21,244	4	9	6	5,448	2,321	3,541
Thunder Bay	130,287	132,213	140,637	48	58	63	2,714	2,280	2,232

APPENDIX 4

YEAR OF D.D.S. GRADUATION OF DENTISTS LICENSED IN ONTARIO
IN 1978 BY COUNTY, DISTRICT OR REGIONAL MUNICIPALITY

Place	No. of Dentists (1)	Percentage of Dentists Graduating per Decade (2)					1970-1978	Median Year of D.D.S. Graduation (3)
		Before 1930	1930-1939	1940-1949	1950-1959	1960-1969		
PROVINCE OF ONTARIO	4,070	2.48	3.27	8.06	21.52	28.08	36.58	1965
CENTRAL REGIONAL PLANNING AREA	2,704	2.59	3.40	7.84	21.63	29.70	34.84	1965
Brant	37	5.41	5.41	5.41	8.11	37.84	37.84	1964
Dufferin	13	15.38	.00	.00	15.38	15.38	53.85	1973
Durham	110	1.82	2.73	3.64	14.55	28.18	49.09	1969
Halimand-Norfolk	28	.00	10.71	10.71	10.71	35.71	32.14	1967
Haliburton	2	.00	.00	.00	.00	50.00	50.00	1966
Halton	119	0.84	1.68	4.20	19.33	38.66	35.29	1967
Hamilton-Wentworth	205	4.88	3.41	5.85	24.88	29.76	31.22	1964
Muskoka	15	13.33	13.33	.00	33.33	13.33	26.67	1957
Niagara	154	1.95	4.55	5.84	27.92	22.08	37.66	1965
Northumberland	19	5.26	5.26	26.32	15.79	15.79	31.58	1955
Peel	164	1.83	0.61	4.88	14.02	28.66	50.00	1969
Peterborough	44	4.55	.00	9.09	22.73	34.09	29.55	1966
Simcoe	86	2.33	2.33	5.81	19.77	30.23	39.53	1968
Metropolitan Toronto	1,411	2.62	3.61	9.71	23.74	29.55	30.76	1963
Victoria	14	7.14	.00	14.29	14.29	42.86	21.43	1965
Waterloo	136	.00	5.15	4.41	19.85	31.62	38.97	1965
Wellington	57	1.75	5.26	10.53	12.28	29.82	40.35	1967
York	90	1.11	1.11	4.44	16.67	31.11	45.56	1968

(1) Includes all dentists listed with an Ontario address in the 1978 Royal College of Dental Surgeons of Ontario Membership List, including revisions and amendments to August 17, 1978. Only one location per dentist has been counted, using the address provided in the membership list.

(2) Year of graduation as shown in the Royal College of Dental Surgeons of Ontario Membership List.

(3) Fifty percent of dentists graduated in this year or earlier.

YEAR OF D.D.S. GRADUATION OF DENTISTS LICENSED IN ONTARIO
IN 1978 BY COUNTY, DISTRICT OR REGIONAL MUNICIPALITY

Place	No. of Dentists ⁽¹⁾	Percentage of Dentists Graduating per Decade ⁽²⁾						Median Year of D.D.S. Graduation ⁽³⁾
		Before 1930	1930-1939	1940-1949	1950-1959	1960-1969	1970-1978	
EASTERN REGIONAL PLANNING AREA	531	2.45	3.77	8.85	21.09	22.41	41.43	1967
Frontenac	55	1.82	3.64	10.91	21.82	20.00	41.82	1967
Hastings	48	6.25	6.25	6.25	12.50	22.92	45.83	1967
Lanark	16	6.25	6.25	6.25	12.50	18.75	50.00	1969
Leeds & Grenville	28	7.14	3.57	14.29	14.29	28.57	32.14	1965
Lennox & Addington	4	.00	.00	25.00	.00	25.00	50.00	1968
Ottawa-Carleton	303	1.32	3.96	8.91	23.76	22.77	39.27	1965
Prescott & Russell	13	.00	.00	.00	15.38	15.38	69.23	1974
Prince Edward	6	.00	.00	33.33	33.33	16.67	16.67	1950
Renfrew	34	.00	.00	.00	26.47	20.59	52.94	1970
Stormont, Dundas & Glengarry	24	8.33	4.17	12.50	12.50	25.00	37.50	1964

(1) Includes all dentists listed with an Ontario address in the 1978 Royal College of Dental Surgeons of Ontario Membership List, including revisions and amendments to August 17, 1978. Only one location per dentist has been counted, using the address provided in the membership list.

(2) Year of graduation as shown in the Royal College of Dental Surgeons of Ontario Membership List.

(3) Fifty percent of dentists graduated in this year or earlier.

YEAR OF D.D.S. GRADUATION OF DENTISTS LICENSED IN ONTARIO
IN 1978 BY COUNTY, DISTRICT OR REGIONAL MUNICIPALITY

Place	No. of Dentists (1)	Percentage of Dentists Graduating per Decade (2)						Median Year of D.D.S. Graduation (3)
		Before 1930	1930-1939	1940-1949	1950-1959	1960-1969	1970-1978	
SOUTHWESTERN REGIONAL PLANNING AREA	564	2.48	2.48	9.57	20.39	26.06	39.01	1966
Bruce	17	5.88	5.88	5.88	.00	25.53	58.82	1970
Elgin	17	.00	.00	5.88	23.53	17.65	52.94	1971
Essex	134	2.24	0.75	8.96	21.64	17.91	48.51	1969
Grey	28	3.57	3.57	7.14	21.43	42.86	21.43	1965
Huron	15	6.67	6.67	.00	20.00	13.33	53.33	1970
Kent	36	2.78	2.78	11.11	13.89	36.11	33.33	1965
Lambton	42	.00	.00	14.29	23.81	16.67	45.24	1968
Middlesex	213	3.29	3.29	10.33	21.60	29.58	31.92	1965
Oxford	40	.00	2.50	10.00	17.50	30.00	40.00	1966
Perth	22	.00	4.55	9.09	22.73	31.82	31.82	1966

(1) Includes all dentists listed with an Ontario address in the 1978 Royal College of Dental Surgeons of Ontario Membership List, including revisions and amendments to August 17, 1978. Only one location per dentist has been counted, using the address provided in the membership list.

(2) Year of graduation as shown in the Royal College of Dental Surgeons of Ontario Membership List.

(3) Fifty percent of dentists graduated in this year or earlier.

YEAR OF D.D.S. GRADUATION OF DENTISTS LICENSED IN ONTARIO
IN 1978 BY COUNTY, DISTRICT OR REGIONAL MUNICIPALITY

Place	No. of Dentists (1)	Percentage of Dentists Graduating per Decade (2)						Median Year of D.D.S. Graduation (3)
		Before 1930	1930-1939	1940-1949	1950-1959	1960-1969	1970-1978	
NORTHEASTERN								
REGIONAL PLANNING AREA	186	1.08	1.61	5.91	25.81	25.27	40.32	1966
Algoma	45	.00	2.22	11.11	26.67	24.44	35.56	1965
Cochrane	27	.00	3.70	.00	18.52	14.81	62.96	1973
Manitoulin	3	.00	.00	.00	33.33	.00	66.67	1975
Nipissing	30	.00	.00	3.33	30.00	33.33	33.33	1966
Parry Sound	13	7.69	7.69	7.69	23.08	30.77	23.08	1965
Sudbury (District)	3	.00	.00	.00	.00	33.33	66.67	1977
Sudbury (Reg. Mun.)	56	1.79	.00	5.36	26.79	25.00	41.07	1965
Timiskaming	9	.00	.00	11.11	33.33	33.33	22.22	1961
NORTHWESTERN								
REGIONAL PLANNING AREA	85	2.35	4.71	4.71	18.82	31.76	37.65	1967
Kenora	16	.00	.00	.00	18.75	31.25	50.00	1969
Rainy River	6	.00	.00	.00	16.67	50.00	33.33	1966
Thunder Bay	63	3.17	6.35	6.35	19.05	30.16	34.92	1965

(1) Includes all dentists listed with an Ontario address in the 1978 Royal College of Dental Surgeons of Ontario Membership List, including revisions and amendments to August 17, 1978. Only one location per dentist has been counted, using the address provided in the membership list.

(2) Year of graduation as shown in the Royal College of Dental Surgeons of Ontario Membership List.

(3) Fifty percent of dentists graduated in this year or earlier.

Licences Issued

																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																								</
--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	----

Additions

Grads - U. of T.	74	111	102	115		112	104	131	112	121	111	108	118	109	115	103	107
Grads - U.W.O.						7			7	9	26	32	50	40	50	50	54
Resumed Practice	27	14	19	24	21	24	24	13	27	32	22	38					
by R.C.D.S. Exam	12	5	1	11	11	16	15	21	35	45	66	45	45	44	45	170	55
by N.D.E.B. Cert.	13	13	13	7	22	15	15	46	63	5	3	2	2	1	1	48	37
Other*									3								
TOTAL	126	143	135	157	166	159	159	211	247	212	228	225	215	194	211	371	253
Addition Rate** (%)	4.95	5.51	5.10	5.83	-	5.52	5.52	7.04	8.12	6.57	7.10	6.50	6.02	5.35	5.41	9.22	5.72

Deletions

On Post Grad Courses	6	8	21	19	6	15	6	6	10	7	3						
Left Ontario	11	16	14	7	4	7	20	14	14	26	27	42	43	56	48	32	44
Retired	37	34	37	41	21	23	39	41	32	27	27	62	44	50	21	7	48
Deceased	42	33	44	26	30	19	27	27	23	16	20	20	18	26	24	16	12
Removed														5	5	18	17
Not Renewing, Other													14				43
TOTAL	96	91	116	93	61	64	64	92	88	81	77	124	119	137	98	73	164
Deletion Rate*** (%)	3.77	3.51	4.38	3.45	-	2.22	3.07	2.89	2.51	2.40	3.58	3.33	3.78	2.51	1.81	3.71	

Net Growth (Additions - Deletions)

Net Growth	30	52	19	64	NA	105	95	119	159	131	151	101	96	57	113	298	89
Rate**** (%)	1.18	2.00	0.72	2.38	-	3.30	3.97	5.23	4.06	4.70	2.92	2.69	1.57	2.90	7.41	2.01	

* Other defined as R.C.D.S. Special Resolution and Register, Academic Licence, Reinstatements, and General Licence.

** Addition Rate defined as the number of additions expressed as a percentage of the previous year's total licences issued.

*** Deletion Rate defined as the number of deletions expressed as a percentage of the previous year's total licences issued.

**** Net Growth Rate defined as the net growth expressed as a percentage of the previous year's total licences issued.

CERTIFIED SPECIALIST DENTISTS AND LICENSED DENTAL HYGIENISTS IN ONTARIO
COUNTIES, DISTRICTS AND REGIONAL MUNICIPALITIES IN 1968, 1973 and 1978

Place	1978 Population	No. of Certified Specialist Dentists		% Change in No. of Specialist Dentists		No. of Licensed Dental Hygienists		% Change in No. of Dental Hygienists	
		1968	1973	1968	1973	1968	1973	1968-78	1973-78
PROVINCE OF ONTARIO	8,309,092	191	299	416	117.8	39.1	306	498	1,196
CENTRAL REGIONAL PLANNING AREA	5,150,882	152	227	309	103.3	36.1	256	378	822
Brant	97,667	1	2	4	300.0	100.0	3	2	8
Dufferin	30,078	0	0	0	-	-	2	2	4
Durham	265,538	1	4	7	600.0	75.0	6	15	56
Haldimand-Norfolk	86,668	0	0	0	-	-	0	2	6
Haliburton	10,681	0	0	0	-	-	0	0	0
Halton	234,892	3	9	13	333.3	44.4	9	16	45
Hamilton-Wentworth	407,486	13	18	27	107.7	50.0	18	21	49
Muskoka	35,925	0	0	0	-	-	3	2	6
Niagara	367,317	7	6	8	14.3	33.3	6	14	55
Northumberland	63,795	0	1	1	-	0	2	3	5
Peel	421,618	2	13	13	550.0	0	11	25	55
Peterborough	98,850	1	3	3	200.0	0	3	3	8
Simcoe	215,855	1	3	5	400.0	66.7	4	13	32
Metropolitan Toronto	2,129,171	115	153	208	80.9	35.9	157	209	374
Victoria	45,986	0	0	0	-	-	1	2	7
Waterloo	297,116	7	10	14	100.0	40.0	16	20	48
Wellington	128,582	1	3	3	200.0	0	5	7	20
York	213,657	0	2	3	-	50.0	10	22	14

CERTIFIED SPECIALIST DENTISTS AND LICENSED DENTAL HYGIENISTS IN ONTARIO
COUNTIES, DISTRICTS AND REGIONAL MUNICIPALITIES IN 1968, 1973 and 1978

Place	1978 Population	No. of Certified Specialist Dentists		% Change in No. of Specialist Dentists		No. of Licensed Dental Hygienists		% Change in No. of Dental Hygienists	
		1968	1973	1968	1978	1968	1973	1968-78	1973-78
EASTERN REGIONAL PLANNING AREA	1,162,740	19	28	44		17	42	141	235.7
Frontenac	110,146	2	3	5		3	8	8	166.7
Hastings	104,190	0	0	1		3	2	13	550.0
Lanark	45,115	0	0	0		0	0	3	-
Leeds & Grenville	80,124	0	0	1		0	2	4	100.0
Lennox & Addington	33,116	0	0	0		0	0	0	-
Ottawa-Carleton	534,941	17	23	34		7	23	90	291.3
Prescott & Russell	51,415	0	0	0		0	0	2	-
Prince Edward	21,993	0	1	1		2	1	1	-100.0
Renfrew	81,939	0	0	1		1	2	8	700.0
Stormont, Dundas & Glengarry	99,761	0	1	1		1	4	12	1,100.0

CERTIFIED SPECIALIST DENTISTS AND LICENSED DENTAL HYGIENISTS IN ONTARIO
COUNTIES, DISTRICTS AND REGIONAL MUNICIPALITIES IN 1968, 1973 and 1978

Place	1978 Population	No. of Certified Specialist Dentists			% Change in No. of Specialist Dentists		No. of Licensed Dental Hygienists			% Change in No. of Dental Hygienists	
		1968	1973	1978	1968-78	1973-78	1968	1973	1978	1968-78	1973-78
SOUTHWESTERN REGIONAL PLANNING AREA											
Bruce	1,263,417	16	39	56	250.0	43.6	23	51	147	539.1	188.2
Elgin	58,121	0	0	0	-	-	0	0	4	-	-
Essex	69,235	0	0	0	-	-	0	0	2	-	-
Grey	314,102	5	10	14	180.0	40.0	5	10	52	940.0	420.0
Huron	72,576	0	0	0	-	-	0	4	4	-	0
Kent	55,846	0	0	0	-	-	1	0	5	400.0	-
Lambton	106,505	0	0	0	-	-	2	3	6	200.0	100.0
Middlesex	120,026	1	2	2	100.0	0	4	7	16	300.0	128.6
Oxford	315,945	9	26	37	311.1	42.3	7	18	44	528.6	144.4
Perth	84,539	1	1	3	200.0	200.0	2	7	6	200.0	- 14.3
	66,522	0	0	0	-	-	2	2	8	300.0	188.2

CERTIFIED SPECIALIST DENTISTS AND LICENSED DENTAL HYGIENISTS IN ONTARIO
COUNTIES, DISTRICTS AND REGIONAL MUNICIPALITIES IN 1968, 1973 and 1978

Place	Population	No. of Certified Specialist Dentists			% Change in No. of Specialist Dentists		No. of Licensed Dental Hygienists			% Change in No. of Dental Hygienists	
		1968	1973	1978	1968-78	1973-78	1968	1973	1978	1968-78	1973-78
NORTHEASTERN REGIONAL PLANNING AREA											
Algoma	533,612	3	3	4	33.3	33.3	8	18	49	512.5	172.2
	116,688	1	0	1	0	-	2	2	12	500.0	500.0
Cochrane	86,886	0	0	0	-	-	1	2	5	400.0	150.0
Manitoulin	7,180	0	0	0	-	-	0	0	0	-	-
Nipissing	74,160	0	1	2	-	100.0	1	2	7	600.0	250.0
Parry Sound	26,814	0	0	0	-	-	1	2	3	200.0	50.0
Sudbury (District)	19,193	0	0	0	-	-	0	1	1	-	0
Sudbury (Reg. Mun.)	163,651	2	2	1	-100.0	-100.0	2	7	19	850.0	171.4
Timiskaming	39,040	0	0	0	-	-	1	2	2	100.0	0
NORTHWESTERN REGIONAL PLANNING AREA											
Kenora	198,441	1	2	3	200.0	50.0	2	9	37	1,750.0	311.1
	36,560	0	0	0	-	-	0	1	1	-	0
Rainy River	21,244	0	0	0	-	-	0	1	2	-	100.0
Thunder Bay	140,637	1	2	3	200.0	50.0	2	7	34	1,600.0	385.7

APPENDIX 7

POPULATION PER NON-SPECIALIST DENTIST IN ONTARIO COUNTIES, DISTRICTS AND REGIONAL MUNICIPALITIES IN 1968, 1973 AND 1978

Place	1978 Population	No. of Dentists		Population per Dentist		% Change in		1978 Relative %		% Dentists ÷ % Pop'n.
		1968	1973	1968	1973	1968-1978	1973-1978	Dentists	of Ontario Total Pop'n.	
Province of Ontario	8,309,092	2642	3086	2613	2474	2285	-12.55	-7.64	100%	1.00
CENTRAL REGIONAL PLANNING AREA	5,150,882	1781	2081	2388	2260	2157	-7.98	-4.56	65.66	61.99
Brant	97,667	26	29	33	3386	3076	2960	-12.58	-3.77	.91
Dufferin	30,078	9	7	13	2045	3387	2314	+13.15	-31.68	.36
Durham	265,538	52	69	103	3851	3191	2578	-33.06	-19.21	2.83
Halldmand-Norfolk	86,668	24	24	28	3404	3461	3095	-9.08	-10.57	.77
Haliburton	10,681	1	3	2	8377	3099	5341	-36.24	+72.35	.05
Halton	234,892	64	85	106	2637	2380	2216	-15.97	-6.89	2.91
Hamilton-Wentworth	407,486	153	161	178	2479	2464	2289	-7.66	-7.10	4.89
Muskoka	35,925	10	12	15	2570	2568	2395	-6.81	-6.74	.41
Niagara	367,317	106	127	146	3127	2719	2516	-19.54	-7.47	4.01
Northumberland	63,795	13	20	18	4274	2929	3544	-17.08	+21.00	.49
Peel	421,618	56	115	151	3748	2632	2792	-25.51	+6.08	4.15
Peterborough	98,850	33	44	42	2561	2060	2354	-8.08	+14.27	1.15
Simcoe	215,855	46	66	74	3140	2616	2917	-7.10	+11.51	2.03
Metropolitan Toronto	2,129,171	1012	1081	1202	1852	1908	1771	-4.37	-7.18	33.05
Victoria	45,986	9	14	14	3651	2641	3285	-10.02	+24.38	.38
Waterloo	297,116	85	107	122	2686	2462	2435	-9.34	-1.10	3.35
Wellington	128,582	34	38	54	2875	2986	2381	-17.18	-20.26	1.48
York	407,486	48	69	87	3016	2647	2456	-18.57	-7.22	2.39

Place	1978 Population	No. of Dentists			Population per Dentist			% Change in Population per Dentist		1978 Relative % of Ontario Total Dentists	% Dentists Pop'n
		1968	1973	1978	1968	1973	1978	1968-1978	1973-1978		
EASTERN REGIONAL PLANNING AREA											
Frontenac	1,162,740	323	390	479	3005	2703	2427	-19.23	-10.21	13.17	13.99
Hastings	110,146	38	41	50	2343	2444	2203	-5.98	-9.85	1.37	1.33
Lanark	104,190	24	35	45	3679	2710	2315	-37.08	-14.58	1.24	1.25
Leeds & Grenville	45,115	12	13	16	3223	3096	2820	-12.50	-8.91	.44	.54
Lennox & Addington	80,124	26	26	27	2753	2825	2968	+7.81	+5.06	.74	.96
Ottawa-Carleton	33,116	6	6	4	4221	4953	8279	+96.14	+67.15	.11	.40
Prescott & Russell	534,941	163	212	269	2617	2252	1989	-24.00	-11.68	7.40	6.44
Prince Edward	51,415	3	7	13	14,139	6371	3955	-72.03	-37.92	.36	.62
Renfrew	21,993	4	4	5	4886	5049	4399	-9.97	-12.87	.14	.26
Stormont, Dundas & Glengarry	81,939	24	26	27	3177	3065	3035	-4.47	-0.98	.74	.99
	99,761	23	20	23	4045	4698	4347	+7.47	-7.47	.63	1.20
SOUTHWESTERN REGIONAL PLANNING AREA											
Bruce	1,263,417	349	394	507	3137	2993	2492	-20.56	-16.74	13.94	15.21
Elgin	58,121	14	13	17	2951	3747	3419	+15.86	-8.75	.47	.70
Essex	69,235	18	19	17	3308	3429	4073	+23.13	+18.78	.47	.83
Grey	314,102	83	89	120	3422	3443	2617	-23.52	-23.99	3.30	3.78
Huron	72,576	22	26	28	2864	2597	2592	-9.50	-0.19	.77	.87
Kent	55,846	12	15	15	4167	3457	3723	-10.66	+7.69	.41	.67
Lambton	106,505	26	28	36	3667	3522	2959	-19.31	-15.99	.99	1.28
Middlesex	120,026	32	37	40	3371	2934	3001	-10.98	+2.28	1.10	1.44
Oxford	315,945	101	117	175	2543	2493	1805	-29.02	-27.60	4.81	3.80
Perth	84,539	24	27	37	3182	2899	2285	-28.19	-21.18	1.02	1.02
	66,522	17	23	22	3568	2714	3024	-15.25	+11.42	.60	.80
											.75

Place	1978 Population	No. of Dentists		Population per Dentist			% Change in		1978 Relative %		% Dentists ÷ % Pop'n	
		1968	1973	1978	1968	1973	1978	1968-1978	1973-1978	Dentists		Total Pop'n
NORTHEASTERN REGIONAL PLANNING AREA												
Algoma	533,612	126	144	181	3809	3553	2948	-22.60	-17.03	4.98	6.42	.78
Cochrane	116,688	35	33	44	2951	3264	2652	-10.13	-18.75	1.21	1.40	.86
Manitoulin	86,886	19	20	27	4103	4128	3218	-21.57	-22.04	.74	1.05	.70
Nipissing	7,180	2	3	3	3415	2335	2393	-29.93	+2.48	.08	.09	.89
Parry Sound	74,160	20	26	27	3400	2667	2747	-19.21	+3.00	.74	.89	.83
Sudbury (District)	26,814	7	8	13	3248	3055	2063	-36.48	-32.47	.36	.32	1.13
Sudbury (Reg. Mun.)	19,193	4	4	3	4626	4645	6398	+38.31	+37.74	.08	.23	.35
Timiskaming	163,651	30	42	55	4751	3856	2975	-37.38	-22.85	1.51	1.97	.77
	39,040	9	8	9	4459	5003	4338	-2.71	-13.29	.25	.47	.53
NORTHWESTERN REGIONAL PLANNING AREA												
Kenora	198,441	63	77	82	2927	2440	2420	-17.32	-0.82	2.25	2.39	.94
Rainy River	36,560	12	12	16	2691	2898	2285	-15.09	-21.15	.44	.44	1.00
Thunder Bay	21,244	4	9	6	5448	2321	3541	-35.00	+52.56	.16	.26	.62
	140,637	47	56	60	2772	2361	2344	-15.44	-0.72	1.65	1.69	.98

APPENDIX 8

POPULATION PER NON-SPECIALIST DENTIST IN 1968, 1973 AND 1978 IN ONTARIO MUNICIPALITIES WITH 1978 POPULATIONS OVER 100,000

Place* (N=12)	1978 Population	No. of Dentists			Population per Dentist			% Change in Population per Dentist		1978 Relative % of Ontario Total Dentists Population
		1968	1973	1978	1968	1973	1978	1968-1978	1973-1978	
CENTRAL REGIONAL PLANNING AREA										
Durham	113,753	27	38	51	3,049	2,553	2,230	-26.86	-12.65	1.40
Halton	108,254	27	41	45	2,812	2,233	2,406	-14.44	+ 7.75	1.30
Hamilton-Wentworth	307,964	133	135	148	2,189	2,250	2,081	- 4.93	- 7.51	3.71
Niagara	124,304	44	46	62	2,358	2,441	2,005	-14.97	-17.86	1.50
Peel	123,837	13	35	41	3,876	2,408	3,020	-22.08	+25.42	1.49
Mississauga**	273,467	41	78	105	3,316	2,560	2,604	-21.47	+ 1.72	3.29
Metropolitan Toronto**	2,129,171	1,012	1,091	1,202	1,852	1,908	1,771	- 4.37	- 7.18	25.62
Waterloo	135,288	45	52	65	2,345	2,335	2,081	-11.26	-10.88	1.63
EASTERN REGIONAL PLANNING AREA										
Ottawa-Carleton	301,317	155	196	247	1,884	1,495	1,220	-35.24	-18.39	6.79
Ottawa										3.63

* Municipalities are listed by regional planning area and county, district or regional municipality.

** 1978 population over 250,000

POPULATION PER NON-SPECIALIST DENTIST IN 1968, 1973 AND 1978 IN ONTARIO MUNICIPALITIES WITH 1978 POPULATIONS OVER 100,000

Place	1978 Population	No. of Dentists		Population per Dentist		% Change in Population per Dentist		1978 Relative % of Ontario Total Dentists Population			
		1968	1973	1978	1968	1973	1978	1968-1978	1973-1978		
SOUTHWESTERN REGIONAL PLANNING AREA											
Essex	197,235	67	73	96	2,881	2,729	2,054	-28.71	-24.73	2.64	2.37
Middlesex	253,726	93	104	156	2,178	2,237	1,626	-25.34	-27.31	4.29	3.05
NORTHWESTERN REGIONAL PLANNING AREA											
Thunder Bay	111,435	42	51	53	2,276	2,078	2,102	- 7.64	+ 1.15	1.46	1.34
TOTAL	4,179,751	1,699	1,940	2,271	2,121	2,022	1,840	-13.25	- 9.00	62.44	50.30

APPENDIX 9

POPULATION PER NON-SPECIALIST DENTIST IN 1968, 1973 AND 1978 IN ONTARIO MUNICIPALITIES WITH 1978 POPULATIONS BETWEEN 25,001 AND 100,000

Place* (N=32)	1978 Population	No. of Dentists			Population per Dentist			% Change in Population per Dentist	
		1968	1973	1978	1968	1973	1978	1968-1978	1973-1978
CENTRAL REGIONAL PLANNING AREA									
<u>Brant</u>									
Brantford**	69,091	21	23	29	2,864	2,672	2,382	-16.83	-10.85
<u>Durham</u>									
Newcastle	32,006	6	6	10	4,251	4,682	3,201	-24.70	-31.63
Pickering	33,956	2	2	9	14,974	12,174	3,773	-74.80	-69.01
Whitby	30,302	8	9	12	2,945	2,771	2,525	-14.26	-8.88
<u>Halton</u>									
Halton Hills	34,051	8	10	13	3,358	3,216	2,619	-22.01	-18.56
Oakville**	69,881	26	27	37	2,136	2,329	1,889	-11.56	-18.89
<u>Hamilton-Wentworth</u>									
Stoney Creek	32,628	7	8	8	3,686	3,545	4,078	+10.63	+15.04
<u>Niagara</u>									
Niagara Falls**	70,554	23	31	28	2,800	2,111	2,520	-10.00	+19.37
Welland	45,261	11	14	18	4,110	3,126	2,514	-38.83	-19.58
<u>Peterborough</u>									
Peterborough**	59,110	29	39	36	1,889	1,445	1,642	-13.08	+13.63
<u>Simcoe</u>									
Barrie	35,586	21	23	27	1,213	1,247	1,318	+8.66	+5.69
<u>Waterloo</u>									
Cambridge**	73,314	23	28	30	2,602	2,318	2,444	-6.07	+5.44
Waterloo**	50,291	11	17	18	3,230	2,461	2,794	-13.50	+13.53
<u>Wellington</u>									
Guelph**	71,349	23	28	37	2,319	2,250	1,928	-16.86	-14.31
<u>York</u>									
Markham**	61,801	12	26	28	2,208	1,830	2,207	-0.05	+20.60
Newmarket	25,133	6	9	13	1,982	2,405	1,933	-2.47	-19.63
Richmond Hill	35,184	10	12	16	2,433	2,779	2,199	-9.62	-20.87

* Municipalities are listed by regional planning area and county, district or regional municipality.

** 1978 population 50,001 - 100,000.

POPULATION PER NON-SPECIALIST DENTIST IN 1968, 1973 AND 1978 IN ONTARIO MUNICIPALITIES WITH 1978 POPULATIONS BETWEEN 25,001 AND 100,000

Place*	1978 Population	No. of Dentists		Population per Dentist		% Change in			
		1968	1973	1978	1968	1973	1978		
EASTERN REGIONAL PLANNING AREA									
Frontenac	61,088	38	40	49	1,478	1,482	1,247	-15.63	-15.86
	25,820	0	0	0	-	-	-	-	-
Hastings	34,822	14	21	23	2,351	1,658	1,514	-35.60	- 8.69
Ottawa-Carleton	80,506	0	0	0	-	-	-	-	-
	65,050	0	2	5	-	21,876	13,010	-	-40.53
Stormont, Dundas & Glengarry	46,152	14	13	15	3,225	3,436	3,077	- 4.59	-10.45
SOUTHWESTERN REGIONAL PLANNING AREA									
Elgin	27,059	13	13	12	1,785	1,994	2,255	+26.33	+13.09
Kent	39,960	15	15	20	2,129	2,311	1,998	- 6.15	-13.54
Lambton	52,854	27	26	32	2,074	2,107	1,652	-20.35	-21.59
Oxford	26,020	15	17	21	1,642	1,472	1,239	-24.54	-15.83
Perth	26,515	12	13	13	1,945	1,850	2,040	+ 4.88	+10.27
NORTHEASTERN REGIONAL PLANNING AREA									
Algoma	80,524	29	27	37	2,584	2,870	2,176	-15.79	-24.18
Cochrane	44,251	11	9	11	2,792	4,662	4,023	+44.09	-13.71
Nipissing	50,417	17	24	24	2,729	1,934	2,101	-23.01	+ 8.63
Sudbury (Reg. Mun.)	94,204	28	36	46	3,201	2,642	2,048	-36.02	-22.48
Sudbury**									
1978 Relative %								18.61	19.07
of Ontario Total								- 6.70	
Dentists . Population								-11.76	

1978 Relative %
of Ontario Total
Dentists . Population
18.61 19.07

* Municipalities are listed by regional planning area and county, district or regional municipality.

** 1978 population 50,001 - 100,000.

APPENDIX 10

POPULATION PER NON-SPECIALIST DENTIST IN 1968, 1973 AND 1978 IN ONTARIO MUNICIPALITIES WITH 1978 POPULATIONS BETWEEN 10,001 AND 25,000

Place * (N=58)	1978 Population	No. of Dentists		Population per Dentist	
		1968	1973	1968	1973
CENTRAL REGIONAL PLANNING AREA					
Dufferin	Orangeville	7	5	8	950
					1,976
					1,629
Durham	Ajax	3	7	10	4,099
	Scugog Tp.	2	2	4	2,618
	Uxbridge Tp.	3	3	6	4,288
					4,992
					3,093
					2,744
					3,334
					1,806
Halldimand-Norfolk	Delhi Tp.	2	2	2	7,904
	Dunnville	3	3	4	7,334
	Halldimand	3	5	5	7,466
	Nanticoke	3	3	3	3,546
	Norfolk Tp.	1	0	1	4,750
	Simcoe	12	11	13	3,039
					3,285
					6,194
					6,205
					6,276
					12,273
					-
					10,980
					845
					1,150
					1,084
Halton	Milton	3	7	11	3,486
					2,238
					2,064
Hamilton-Wentworth	Ancaster	4	6	7	3,796
	Dundas	7	8	10	2,439
	Flamborough Tp.	2	2	4	2,262
					1,913
					10,915
					10,935
					5,937
Muskoka	Huntsville	4	5	6	2,091
					1,873
					1,790
Niagara	Port Erie	7	7	7	3,232
	Grimsby	7	8	8	3,243
	Lincoln	3	3	4	3,401
	Niagara-on-the-Lake	2	3	4	2,066
	Pelham	1	2	4	1,969
	Port Colborne	5	9	7	4,209
	Thorold	2	3	2	4,544
					3,614
					6,154
					4,084
					3,060
					11,379
					4,860
					2,702
					3,956
					2,280
					2,826
					6,060
					4,925
					7,575

* Municipalities are listed by regional planning area and county, district or regional municipality.

POPULATION PER NON-SPECIALIST DENTIST IN 1968, 1973 AND 1978 IN ONTARIO MUNICIPALITIES WITH 1978 POPULATIONS BETWEEN 10,001 AND 25,000

Place	1978 Population	No. of Dentists		Population per Dentist				
		1968	1973	1968	1973			
<u>Northumberland</u>	Cobourg	11,216	5	7	6	2,132	1,555	1,869
<u>Simcoe</u>	Collingwood	11,465	3	7	5	2,838	1,369	2,293
	Essa Tp.	15,078	0	0	0	-	-	-
	Innisfil Tp.	16,052	0	0	2	-	-	8,026
	Midland	11,726	5	8	7	2,095	1,385	1,675
	Orillia	23,575	12	15	16	1,711	1,446	1,473
<u>Victoria</u>	Lindsay	13,687	7	10	11	1,679	1,235	1,244
<u>Waterloo</u>	Wilmot Tp.	10,731	2	2	3	4,608	5,024	3,577
	Woolwich Tp.	16,092	3	7	6	3,451	2,044	2,682
<u>York</u>	Aurora	14,991	7	9	10	1,745	1,514	1,499
	East Gwillimbury Tp.	11,316	0	0	0	-	-	-
	Georgina Tp.	18,476	3	3	5	3,912	5,260	3,695
	King Tp.	14,671	1	2	5	12,839	6,542	2,934
	Vaughan	18,866	5	4	6	3,985	3,994	3,144
	Whitchurch-Stouffville	13,219	4	4	4	3,334	2,970	3,305
EASTERN REGIONAL PLANNING AREA								
<u>Hastings</u>	Sidney Tp.	15,821	0	0	0	-	-	-
	Trenton	14,784	7	6	12	1,993	2,398	1,232
<u>Leeds & Grenville</u>	Brockville	20,010	12	11	16	1,652	1,788	1,251
<u>Lennox & Addington</u>	Ernestown Tp.	11,211	2	1	1	3,564	9,486	11,211
<u>Ottawa-Carleton</u>	Cumberland Tp.	13,451	0	0	0	-	-	-
	Kanata	16,765	0	7	6	-	945	2,794
	Vanier	18,510	2	2	3	11,818	10,467	6,170
<u>Renfrew</u>	Pembroke	14,353	9	9	11	1,682	1,674	1,305

POPULATION PER NON-SPECIALIST DENTIST IN 1968, 1973 AND 1978 IN ONTARIO MUNICIPALITIES WITH 1978 POPULATIONS BETWEEN 10,001 AND 25,000

Place	1978 Population	No. of Dentists			Population per Dentist			% Change in Population per Dentist 1968-1978	1978 Relative % of Ontario Total Dentists Population
		1968	1973	1978	1968	1973	1978		
SOUTHWESTERN REGIONAL PLANNING AREA									
<u>Essex</u>	11,404	6	7	7	1,594	1,511	1,629		
	13,989	0	0	0	-	-	-		
<u>Grey</u>	19,697	14	16	16	1,304	1,125	1,231		
<u>Kent</u>	11,142	3	3	4	3,618	3,431	2,786		
<u>Lambton</u>	17,513	0	0	0	-	-	-		
NORTHEASTERN REGIONAL PLANNING AREA									
<u>Algoma</u>	12,893	2	2	3	4,494	4,106	4,298		
<u>Cochrane</u>	12,178	4	3	5	3,118	4,175	2,436		
<u>Sudbury (Reg. Mun.)</u>	12,615	0	1	1	-	12,537	12,615		
	15,369	0	1	3	-	15,491	5,123		
	20,825	0	1	2	-	17,296	10,412		
	10,422	1	2	2	7,378	5,078	5,211		
<u>Timiskaming</u>	12,768	6	3	5	2,420	4,680	2,554		
<u>TOTAL</u>	889,293	213	259	318	3,429	3,038	2,796	-18.46	-7.97
								8.47	10.70

APPENDIX 11

NUMBER OF NON-SPECIALIST DENTISTS IN 1968, 1973 AND 1978 IN ONTARIO MUNICIPALITIES WITH DENTISTS AND WITH 1978 POPULATIONS OF 10,000 AND LESS

Place* (N=212)		1978 Population		No. of Dentists			Place			1978 Population		No. of Dentists		
				1968	1973	1978				1968	1973	1978		
CENTRAL REGIONAL PLANNING AREA														
<u>Brant</u>	Paris**	7,048	5	6	4		<u>Peterborough</u>		Havelock	1,236	0	1	0	
	Grand Valley	1,160	0	0	1				Lakefield	2,266	3	3	4	
<u>Dufferin</u>	Shelburne	3,001	2	2	4				Millbrook	903	0	1	1	
									Norwood	1,288	1	0	0	
<u>Durham</u>	Brock Tp.**	9,028	1	2	1				Smith Tp.**	7,602	0	0	1	
<u>Haliburton</u>	Anson, Hinton & Minden Tp.	2,387	0	1	1		<u>Simcoe</u>		Alliston	4,675	2	2	5	
	Dysart et. al. Tp.	3,379	1	2	1				Bradford**	6,610	1	2	3	
<u>Hamilton-Wentworth</u>	Glanbrook Tp.**	9,945	0	2	1				Coldwater	781	0	1	0	
									Creemore	1,122	1	0	0	
<u>Muskoka</u>	Bracebridge**	8,485	2	2	3				Elmvale	1,173	0	1	0	
	Georgian Bay Tp.	2,006	1	0	0				Mara Tp.	3,647	0	0	1	
<u>Muskoka</u>	Gravenhurst**	8,046	3	3	4				Orillia Tp.**	6,437	0	1	0	
	Muskoka Lakes Tp.	4,605	0	2	2				Penetanguishene**	5,388	1	3	4	
<u>Niagara</u>	West Lincoln Tp.**	9,660	1	1	2				Stayner	2,526	0	1	1	
									Tiny Tp.**	6,844	0	1	0	
<u>Northumberland</u>	Brighton	3,070	1	2	2		<u>Victoria</u>		Tottenham	2,866	0	1	1	
	Campbellford	3,411	2	3	3				Wasaga Beach	4,519	0	0	1	
<u>Northumberland</u>	Colborne	1,767	0	1	0				Bexley & Somerville Tps.	2,229	0	2	2	
	Percy Tp.	2,433	0	1	0				Bobcaygeon	1,629	1	1	1	
<u>Port Hope**</u>	Port Hope**	9,992	5	6	7				Fenelon Falls	1,627	1	1	0	

* Municipalities are listed by regional planning area and county, district or regional municipality.

**1978 population 5,001-10,000.

Place	1978 Population	No. of Dentists		Place	1978 Population	No. of Dentists	
		1968	1973			1968	1973
<u>Waterloo</u>	4,869	1	1	0	1,016	1	0
<u>Wellington</u>	1,669	1	2	3	4,848	3	3
Dumfries, N. Tp.	767	0	0	1			
Arthur	2,476	2	1	1			
Drayton	4,269	0	0	1			
Elora	2,175	0	1	1			
Eramosa Tp.	5,799	0	0	3			
Erin	5,981	2	2	3			
Erin Tp.**	1,954	2	1	1			
Pergus**	3,402	2	2	2			
Harriston	1,987	2	1	1			
Mount Forest							
Palmerston							
EASTERN REGIONAL PLANNING AREA							
<u>Frontenac</u>	1,215	0	1	1			
Oso Tp.							
<u>Hastings</u>	2,346	1	3	3			
Bancroft	1,751	0	0	2			
Deseronto	1,872	0	2	0			
Frankford	1,240	0	2	1			
Madoc	1,556	1	0	1			
Stirling	6,312	0	0	1			
Thurlow Tp.**	1,632	1	1	2			
Tweed							
<u>Lennox & Addington</u>	3,839	1	1	1			
Almonte	5,574	2	2	2			
Carleton Place**	5,776	4	5	7			
Perth**	9,016	5	5	6			
Smiths Falls**							
<u>Stormont, Dundas & Glengarry</u>	998	1	1	0			
Athens	4,049	0	0	1			
Front of Leeds & Lansdowne Tp.							
Gananoque	4,907	4	4	3			
Kemptville	2,415	3	2	2			
Newboro	244	0	1	2			
Prescott	4,803	3	3	2			
South Crosby Tp.	1,480	2	3	1			
Westport	686	1	1	0			
<u>Lennox & Russell</u>							
Alfred	1,100	0	0	0			
Casselman	1,585	0	1	2			
Hawkesbury**	9,804	2	4	6			
I'Original	1,453	0	0	1			
Rockland	4,040	0	1	1			
Russell Tp.**	5,380	0	0	1			
Vankleek Hill	1,634	1	1	1			
<u>Prince Edward</u>	909	0	1	0			
Marysburgh, S. Tp.	4,324	4	3	5			
Pictou							
<u>Renfrew</u>	5,911	4	5	5			
Arnprior**	1,310	1	1	1			
Barry's Bay	673	0	0	1			
Beachburg	1,050	1	1	0			
Cobden	5,306	3	3	3			
Deep River**	1,307	0	1	1			
Eganville	3,736	1	1	1			
Petawawa	8,490	5	5	4			
Renfrew**							
<u>Stormont, Dundas & Glengarry</u>							
Alexandria	3,437	2	1	2			
Chesterville	1,423	2	0	0			
Iroquois	1,241	1	1	1			
Maxville	831	0	1	0			
Morrisburg	2,301	2	1	1			
Roxborough Tp.	2,994	1	1	1			
Winchester	1,866	1	2	3			

SOUTHWESTERN REGIONAL PLANNING AREA													
Place		1978 Population		No. of Dentists			Place		1978 Population		No. of Dentists		
				1968	1973	1978					1968	1973	1978
<u>Bruce</u>	Chesley	1,859	2	1	1	1	<u>Huron</u>	Brussels	993	0	1	1	1
	Kincardine**	5,343	3	4	4	4		Clinton	3,107	2	2	2	2
	Lucknow	1,155	1	0	1	1		Exeter	3,532	3	4	3	3
	Mildmay	981	1	1	0	0		Goderich**	7,298	5	3	4	3
	Port Elgin**	5,840	2	1	4	4		Seaforth	2,029	0	3	2	4
	Southampton	2,748	1	1	1	1		Wingham	2,891	2	2	2	2
	St. Edmunds Tp.	704	0	1	1	1		Zurich	779	0	0	1	1
	Walkerton	4,498	3	3	3	3							
	Wiaarton	2,060	1	1	2	2	<u>Kent</u>	Blenheim	3,999	2	1	3	3
								Dresden	2,430	1	2	1	1
<u>Eglin</u>	Aylmer**	5,156	3	4	3	3		Highgate	417	1	1	2	2
	Dutton	1,043	1	0	0	0		Ridgetown	3,214	2	3	3	3
	Port Stanley	1,902	0	1	0	0		Thamesville	980	1	1	0	2
	Rodney	1,017	0	0	1	1		Tilbury	4,350	1	1	2	2
	West Lorne	1,256	1	1	1	1		Wheatley	1,573	0	1	1	1
<u>Essex</u>	Amherstburg**	5,738	2	1	4	4	<u>Lambton</u>	Forest	2,679	1	1	2	2
	Belle River	3,432	2	1	1	1		Grand Bend	759	0	1	1	1
	Essex**	6,259	1	2	3	3		Moore Tp.**	9,591	0	1	1	1
	Harrow	2,039	1	2	4	4		Petrolia	4,315	2	3	2	2
	Kingsville	4,937	3	3	4	4		Watford	1,413	1	2	1	1
	Maidstone Tp.**	8,248	0	0	1	1		Wyoming	1,549	1	3	1	1
	Tecumseh**	5,768	1	0	0	0	<u>Middlesex</u>						
								Ailsa Craig	780	0	0	1	1
	Durham	2,467	1	1	1	1		Caradoc Tp.**	5,653	0	0	2	2
	Euphrasia Tp.	1,405	0	0	1	1		Glencoe	1,743	1	1	1	1
<u>Grey</u>	Hanover**	5,786	2	4	4	4		Lobo Tp.	4,769	0	1	1	1
	Markdale	1,337	1	1	2	2		Lucan	1,547	1	1	1	1
	Meaford	4,091	1	2	2	2		Newbury	422	0	1	0	2
	Neustadt	498	1	0	0	0		North Dorchester Tp.**	6,690	1	1	2	2
	Thornbury	1,386	2	2	2	2		Parkhill	1,274	1	0	1	1
								Strathroy**	8,286	4	6	8	8
								Westminster Tp.**	6,267	0	2	2	2

Place	1978 Population	No. of Dentists			Place	1978 Population	No. of Dentists		
		1968	1973	1978			1968	1973	1978
<u>Oxford</u>									
	East Zorra -	7,146	0	1	Parry Sound				
	Tavistock Tp.**			1	Burk's Falls	841	1	0	1
	Ingersoll**	8,252	4	4	Himsworth, N. Tp.	2,314	0	0	1
	Norwich Tp.**	9,795	0	0	McKellar Tp.	587	0	1	1
	Tillsonburg**	9,774	5	5	Parry Sound**	5,248	5	5	8
	Zorra Tp.**	8,408	0	0	Powasson	1,215	1	1	1
				1	South River	1,115	0	1	0
					Sundridge	702	0	0	1
<u>Perth</u>									
	Listowel	4,972	2	4		unavailable	1	0	0
	Logan Tp.	2,224	0	1	Burwash	1,602	0	1	0
	Milverton	1,469	0	1	Cosby et. al. Tp.	5,888	1	3	3
	Mitchell	2,750	1	2	Espanola**	511	2	0	0
	St. Mary's	4,709	2	2	Webbwood				
				3					
NORTHEASTERN REGIONAL PLANNING AREA									
					Sudbury (Reg. Mun.)	6,227	1	1	1
<u>Algoma</u>									
	Blind River	3,174	2	1	Onaping Falls**				
	Bruce Mines	569	0	0	Englehart	1,689	0	1	0
	Iron Bridge	803	0	1	Haileybury	4,997	1	2	2
	Michipicoten Tp.	4,595	1	2	New Liskeard**	5,496	2	2	2
	Thessalon	1,672	1	0					
				0	NORTHWESTERN REGIONAL PLANNING AREA				
<u>Cochrane</u>									
	Cochrane	4,725	1	1	Kenora	6,482	3	3	4
	Hearst**	5,212	1	1	Dryden**	2,036	0	0	1
	Iroquois Falls**	6,451	2	3	Ear Falls Tp.	2,131	0	0	1
	Moosonee Development Area Bd.	1,327	0	2	Ignace Tp.	9,992	6	5	6
	Smooth Rock Falls	2,373	0	1	Kenora**	1,134	0	1	0
				0	Machin Tp.	2,179	1	1	1
					Red Lake Tp.	3,062	2	2	3
<u>Manitowlin</u>					Sioux Lookout				
	Carnarvon Tp.	988	0	1					
	Gore Bay	783	1	1	Atikokan Tp.**	5,733	1	1	1
	Little Current	1,517	1	1	Fort Frances**	9,088	3	7	4
					Rainy River	1,048	0	1	1
<u>Nipissing</u>									
	Sturgeon Falls**	6,289	3	2					

Place	1978 Population	No. of Dentists		
		1968	1973	1978
Thunder Bay				
Beardmore Tp.	588	0	0	1
Geraldton	3,010	1	1	2
Longlac Tp.	2,189	1	1	1
Manitouwadge Tp.	2,979	0	1	0
Marathon Tp.	2,365	1	0	1
Nipigon Tp.	2,510	0	1	1
Red Rock Imp. Dist.	1,566	1	0	0
Terrace Bay Tp.	2,114	1	1	1
TOTAL (N=212)	736,843	250	319	371

1978 Relative % of Ontario Total

<u>Dentists</u>	<u>Population</u>
10.20	8.87

APPENDIX 12
POPULATION PER NON-SPECIALIST DENTIST IN 1968, 1973 AND 1978 IN AGGREGATED URBAN AREAS OF ONTARIO WITH
1978 POPULATIONS OVER 250,000 AND BETWEEN 100,000 AND 250,000

Census Metropolitan Area (CMA) *	1978 Population	No. of Dentists			Population per Dentist		% Change in Population per Dentist		1978 Relative % of Ontario Total Dentists Pop'n.		
		1968	1973	1978	1968	1973	1978	1968-1978	1973-1978	Dentists	Pop'n.
POPULATION >250,000											
Hamilton	531,005	187	210	231	2512	2400	2299	-8.48	-4.21	6.35	6.39
Kitchener	279,854	83	105	119	2606	2355	2352	-9.75	-0.13	3.27	3.37
London	283,454	94	107	160	2456	2452	1772	-27.85	-27.73	4.40	3.41
Ottawa	535,821	162	212	270	2661	2258	1984	-25.44	-12.13	7.42	6.45
St. Catharines	304,126	88	108	125	3114	2633	2433	-21.87	-7.60	3.44	3.67
Toronto	2,873,088	1144	1308	1491	2024	2031	1927	-4.79	-5.12	41.00	34.58
Windsor	250,142	71	76	101	3264	3258	2477	-24.11	-23.97	2.78	3.01
POPULATION >250,000											
TOTAL	5,057,490	1829	2126	2497	2279	2202	2025	-11.15	-8.04	68.66	60.87
POPULATION											
100,001-250,000											
Oshawa	144,055	35	47	63	3025	2595	2287	-24.40	-11.87	1.73	1.73
Sudbury	153,435	29	41	54	4580	3672	2841	-37.97	-22.63	1.48	1.85
Thunder Bay	119,031	42	51	53	2590	2193	2246	-13.28	+2.42	1.46	1.43
POPULATION											
100,001-250,000.											
TOTAL	416,521	106	139	170	3278	2765	2450	-25.26	-11.39	4.67	5.01
TOTAL CMA											
	5,474,011	1935	2265	2667	2334	2236	2052	-12.08	-8.23	73.33	65.88

* For definition of CMA see Appendix 1.
CMAs are listed alphabetically within the stated population ranges.

Census Agglomeration (CA)*	1978 Population	No. of Dentists			Population per Dentist		% Change in Population per Dentist		1978 Relative % of Ontario Total Dentists Pop'n.		
		1968	1973	1978	1968	1973	1968-1978	1973-1978			
POPULATION											
25,001-100,000											
Barrie	51,638	21	23	29	1614	1782	1781	+10.35	-0.06	0.80	0.62
Brantford	85,469	26	29	33	2915	2650	2590	-11.15	-2.26	0.91	1.03
Brockville	27,192	12	11	16	2105	2324	1700	-19.24	-26.85	0.44	0.33
Guelph	74,267	23	28	37	2423	2344	2007	-17.17	-14.38	1.02	0.89
Kingston	92,537	38	40	49	1954	2114	1888	-3.38	-10.69	1.35	1.11
Midland	26,212	6	11	11	3492	2118	2383	-31.76	+12.51	0.30	0.32
North Bay	52,731	17	24	24	2844	2024	2197	-22.75	+8.55	0.66	0.63
Peterborough	64,725	32	42	40	1874	1467	1618	-13.66	+10.29	1.10	0.78
Sarnia	82,375	27	27	33	2812	2741	2496	-11.24	-8.94	0.91	0.99
Sault Ste. Marie	80,524	29	27	37	2584	2870	2176	-15.79	-24.18	1.02	0.97
Trenton	32,477	7	8	12	3300	3160	2706	-18.00	-14.37	0.33	0.39
POPULATION											
25,001-100,000											
TOTAL	670,147	238	270	321	2387	2237	2088	-12.53	-6.66	8.83	8.07
POPULATION											
10,001-25,000											
Arnprior	10,523	4	5	5	2423	2039	2105	-13.12	+3.24	0.14	0.13
Cobourg	19,956	5	7	6	3391	2621	3326	-1.92	+26.90	0.16	0.24
Fergus	11,919	4	3	4	2174	3307	2980	+37.07	-9.89	0.11	0.14
Halleybury	12,270	3	4	4	3885	3095	3068	-21.03	-0.87	0.11	0.15
Kenora	11,824	6	5	6	2167	2442	1971	-9.04	-19.29	0.16	0.14
Kingsville	12,197	3	3	4	2968	3574	3049	+2.73	-14.69	0.11	0.15
Pembroke	17,813	9	9	11	2058	2081	1619	-21.33	-22.20	0.30	0.21
Port Elgin	10,252	3	2	5	1565	3341	2050	+30.99	-38.64	0.14	0.12
Smiths Falls	12,931	5	5	6	2432	2354	2155	-11.39	-8.45	0.16	0.16
POPULATION											
10,001-25,000											
TOTAL	119,685	42	43	51	2483	2580	2347	-5.48	-9.03	1.40	1.44

* For definition of CAs see Appendix 1.
CAs are listed alphabetically within stated population ranges.

<u>Census Agglomeration</u>	<u>1978 Population</u>	<u>No. of Dentists</u>			<u>Population per Dentist</u>			<u>% Change in</u>		<u>1978 Relative % of Ontario Total Dentists Pop'n.</u>
		<u>1968</u>	<u>1973</u>	<u>1978</u>	<u>1968</u>	<u>1973</u>	<u>1978</u>	<u>1968-1978</u>	<u>1973-1978</u>	
POPULATION <10,000										
Hawkesbury	9,804	2	4	6	4524	2356	1634	-63.88	-30.65	0.16
Petawawa	7,197	1	1	1	4978	6250	7197	+44.58	+15.15	0.03
POPULATION <10,000 TOTAL	17,001	3	5	7	4676	3135	2429	-48.05	-22.52	0.19
TOTAL CA	806,833	283	318	379	2426	2297	2129	-12.24	-7.31	10.42
TOTAL CMA AND CA	6,280,844	2218	2583	3046	2346	2244	2062	-12.11	-8.11	83.75
PROVINCE OF ONTARIO	8,309,092	2642	3086	3637	2613	2474	2285	-12.55	-7.64	100.00

APPENDIX 13
POPULATION PER NON-SPECIALIST DENTIST IN AGGREGATED URBAN AREAS* OF ONTARIO
(WITH COMPONENT MUNICIPALITIES INDICATED) IN 1968, 1973 AND 1978

Aggregated Urban Area	1978 Population	No. of Non-Specialist Dentists			Population per Dentist			% Change in Population per Dentist		1978 Relative % of Ontario Total Dentist Population
		1968	1973	1978	1968	1973	1978	1968-1978	1973-1978	
POPULATION > 250,000										
HAMILTON CMA	531,005	187	210	231	2,512	2,400	2,299	-8.48	-4.21	6.35
Ancaster	14,073	4	6	7						6.39
Burlington	108,254	27	41	45						
Dundas	19,129	7	8	10						
Flamborough Tp.	23,747	2	2	4						
Glanbrook Tp.	9,945	0	2	1						
Grimsby	15,265	7	8	8						
Hamilton	307,964	133	135	148						
Stoney Creek	32,628	7	8	8						
KITCHENER CMA	279,854	83	105	119	2,606	2,355	2,352	-9.75	-0.13	3.27
Cambridge	73,314	23	28	30						3.37
Kitchener	135,288	45	52	65						
North Dumfries Tp.	4,869	1	1	0						
Waterloo	50,291	11	17	18						
Woolwich Tp.	16,092	3	7	6						

* Census Metropolitan Areas (CMA) and Census Agglomerations (CA). For definitions see Appendix 1.

Aggregated Urban Area	1978 Population	No. of Non-Specialist Dentists			Population per Dentist		% Change in Population per Dentist 1968-1978	1978 Relative % of Ontario Total Dentists Population
		1968	1973	1978	1968	1973		
LONDON CMA	283,454	94	107	160	2,456	2,452	-27.85	4.40
Belmont	744	0	0	0				3.41
Delaware Tp.	2,229	0	0	0				
London	253,726	93	104	156				
London Tp.	5,889	0	0	0				
North Dorchester Tp.	6,690	1	1	2				
Southwold Tp.	4,513	0	0	0				
Westminster Tp.	6,267	0	2	2				
West Nissouri Tp.	3,396	0	0	0				
OTTAWA CMA	535,821	162	212	270	2,661	2,258	-25.44	7.42
Clarence Tp.	6,381	0	0	0				6.45
Cumberland Tp.	13,451	0	0	0				
Gloucester Tp.	65,050	0	2	5				
Goulborn Tp.	9,327	2	1	1				
Kanata	16,765	0	7	6				
Nepean	80,506	0	0	0				
Osgoode Tp.	9,259	3	3	7				
Ottawa	301,317	155	196	247				

Aggregated Urban Area	1978 Population	No. of Non-Specialist Dentists		Population per Dentist		% Change in Population per Dentist 1968-1978		1978 Relative % of Ontario Total Dentists	
		1968	1973	1968	1973	1968-1978	1973-1978	Dentists	Population
Rideau Tp.	8,826	0	0						
Rockland	4,040	0	1						
Rockliffe Park	2,389	0	0						
Vanier	18,510	2	2						
ST. CATHARINES CMA	304,126	88	108	3,114	2,633	-21.87	-7.60	3.44	3.67
Niagara Falls	70,554	23	31						
Niagara-on-the-Lake	12,238	2	3						
Pelham	10,808	1	2						
Port Colborne	19,784	5	9						
St. Catharines	124,304	44	46						
Thorold	15,150	2	3						
Wainfleet Tp.	6,027	0	0						
Welland	45,261	11	14						

Aggregated Urban Area	1978 Population	No. of Non-Specialist Dentists		Population per Dentist		% Change in Population per Dentist		1978 Relative % of Ontario Total Dentists Population
		1968	1973	1968	1973	1968-1973	1973-1978	
TORONTO CMA	2,873,088	1,144	1,308	2,024	2,031	-4.79	-5.12	41.00
Ajax	23,281	3	7					34.58
Aurora	14,991	7	9					
Brampton	123,837	13	35					
Caledon	24,314	2	2					
East Gwillimbury Tp.	11,316	0	0					
King Tp.	14,671	1	2					
Markham	61,801	12	26					
Mississauga	273,467	41	78					
Newmarket	25,133	6	9					
Oakville	69,881	26	27					
Pickering	33,956	2	2					
Richmond Hill	35,956	10	12					
Metropolitan Toronto	2,129,171	1,012	1,091					
Vaughan	18,866	5	4					
Whitchurch Stouffville	13,219	4	4					

Aggregated Urban Area	1978 Population	No. of Non-Specialist Dentists			Population per Dentist		% Change in Population per Dentist		1978 Relative % of Ontario Total Dentists Population
		1968	1973	1978	1968	1973	1968-1973	1973-1978	
WINDSOR CMA	250,142	71	76	101	3,264	3,258	2,477	-24.11	2.78
Belle River	3,432	2	1	1				-23.97	3.01
Colchester North Tp.	3,569	0	0	0					
Essex	6,259	1	2	3					
Maidstone Tp.	8,248	0	0	1					
Rochester Tp.	4,310	0	0	0					
St. Clair Beach	2,359	0	0	0					
Sandwich South Tp.	4,973	0	0	0					
Sandwich West Tp.	13,989	0	0	0					
Tecumseh	5,768	1	0	0					
Windsor	197,235	67	73	96					
CMA's POPULATION >250,000 TOTAL	5,057,490	1,829	2,126	2,497	2,279	2,202	2,025	-11.15	68.66
POPULATION 100,001-250,000								- 8.04	60.87
OSHAWA CMA	144,055	35	47	63	3,025	2,595	2,287	-24.40	1.73
Oshawa	113,753	27	38	51				-11.87	1.73
Whitby	30,302	8	9	12					

Aggregated Urban Area	1978 Population	No. of Non-Specialist Dentists			Population per Dentist		% Change in Population per Dentist 1968-1973		1978 Relative % of Ontario Total Dentists Population		
		1968	1973	1978	1968	1973	1978	1968-1973	1973-1978	1968-1973	1973-1978
SUDBURY CMA	153,435	29	41	54	4,580	3,672	2,841	-37.97	-22.63	1.48	1.85
Nickel Centre	12,615	0	1	1							
Rayside-Balfour	15,369	0	1	3							
Sudbury	94,204	28	36	46							
Valley East	20,825	0	1	2							
Walden	10,422	1	2	2							
THUNDER BAY CMA	119,031	42	51	53	2,590	2,193	2,246	-13.28	+ 2.42	1.46	1.43
Neebing Tp.	680	0	0	0							
O'Connor Tp.	565	0	0	0							
Oliver Tp.	2,113	0	0	0							
Paipoonge Tp.	2,597	0	0	0							
Shuniah Tp.	1,641	0	0	0							
Thunder Bay	111,435	42	51	53							
CMA's POPULATION 100,001-250,000 TOTAL	416,521	106	139	170	3,278	2,765	2,450	-25.26	-11.39	4.67	5.01
POPULATION 25,001- 100,000											
BARRIE CA	51,638	21	23	29	1,614	1,782	1,781	+10.35	- 0.06	0.80	0.62
Barrie	35,586	21	23	27							
Innisfil Tp.	16,052	0	0	2							

Aggregated Urban Area	1978 Population	No. of Non-Specialist Dentists			Population per Dentist		% Change in Population per Dentist 1968-1973		1978 Relative % of Ontario Total Dentists Population	
		1968	1973	1978	1968	1973	1968-1973	1973-1978	Dentists	Population
BRANTFORD CA	85,469	26	29	33	2,915	2,650	2,590	-11.15	0.91	1.03
Brantford	69,091	21	23	29						
Brantford Tp.	9,330	0	0	0						
Paris	7,048	5	6	4						
BROCKVILLE CA	27,192	12	11	16	2,105	2,324	1,700	-19.24	0.44	0.33
Brockville	20,010	12	11	16						
Elizabethtown Tp.	7,182	0	0	0						
GUELPH CA	74,267	23	28	37	2,423	2,344	2,007	-17.17	1.02	0.89
Guelph	71,349	23	28	37						
Guelph Tp.	2,918	0	0	0						
KINGSTON CA	92,537	38	40	49	1,954	2,114	1,888	- 3.38	1.35	1.11
Kingston	61,088	38	40	49						
Kingston Tp.	25,820	0	0	0						
Pittsburgh Tp.	5,629	0	0	0						

Aggregated Urban Area	1978 Population	No. of Non-Specialist Dentists			Population per Dentist		% Change in Population per Dentist 1968-1973		1978 Relative % of Ontario Total Dentists	
		1968	1973	1978	1968	1973	1968-1973	1973-1978	Dentists	Population
MIDLAND CA	26,212	6	11	11	3,492	2,118	-31.76	+12.51	0.30	0.32
Midland	11,726	5	8	7						
Penetanguishene	5,388	1	3	4						
Port McNicoll	1,950	0	0	0						
Tay Tp.	6,002	0	0	0						
Victoria Harbour	1,146	0	0	0						
NORTH BAY CA	52,731	17	24	24	2,844	2,024	-22.75	+ 8.55	0.66	0.63
North Bay	50,417	17	24	24						
North Himsworth Tp	2,314	0	0	0						
PETERBOROUGH CA	64,725	32	42	40	1,874	1,467	-13.66	+10.29	1.10	0.78
Douro Tp.	3,349	0	0	0						
Lakefield	2,266	3	3	4						
Peterborough	59,110	29	39	36						
SARNIA CA	82,375	27	27	33	2,812	2,741	-11.24	- 8.94	0.91	0.99
Moore Tp.	9,591	0	1	1						
Point Edward	2,417	0	0	0						
Samia	52,854	27	26	32						
Samia Tp.	17,513	0	0	0						

Aggregated Urban Area	1978 Population	No. of Non-Specialist Dentists			Population per Dentist		% Change in Population per Dentist 1968-1973 1973-1978		1978 Relative % of Ontario Total Dentists Population
		1968	1973	1978	1968	1973	1968-1973	1973-1978	
SAULT STE MARIE CA	80,524	29	27	37	2,584	2,870	-15.79	-24.18	1.02 0.97
Sault Ste. Marie	80,524	29	27	37					
TRENTON CA	32,477	7	8	12	3,300	3,160	-18.00	-14.37	0.33 0.39
Frankford	1,872	0	2	0					
Sidney Tp.	15,821	0	0	0					
Trenton	14,784	7	6	12					
CAS POPULATION 25,001-100,000 TOTAL	670,147	238	270	321	2,387	2,237	-12.53	- 6.66	8.83 8.07
POPULATION 10,001-25,000									
ARNPRIOR CA	10,523	4	5	5	2,423	2,039	-13.12	+ 3.24	
Arnprior	5,911	4	5	5					
Braeside	505	0	0	0					
McNab Tp.	4,107	0	0	0					
COBOURG CA	19,956	5	7	6	3,391	2,621	- 1.92	+26.90	
Cobourg	11,216	5	7	6					
Hamilton Tp.	8,740	0	0	0					

Aggregated Urban Area	1978 Population	No. of Non-Specialist Dentists			Population per Dentist			% Change in Population per Dentist		1978 Relative % of Ontario Total Dentists Population
		1968	1973	1978	1968	1973	1978	1968-1973	1973-1978	
FERGUS CA	11,919	4	3	4	2,174	3,307	2,980	+37.07	- 9.89	
Elora	2,476	2	1	1						
Fergus	5,981	2	2	3						
Nichol Tp.	3,462	0	0	0						
HAILEYBURY CA	12,270	3	4	4	3,885	3,095	3,068	-21.03	- 0.87	
Cobalt	1,777	0	0	0						
Haileybury	4,997	1	2	2						
New Liskeard	5,496	2	2	2						
KENORA CA	11,824	6	5	6	2,167	2,442	1,971	- 9.04	-19.29	
Kenora	9,992	6	5	6						
Keewatin	1,832	0	0	0						
KINGSVILLE CA	12,197	3	3	4	2,968	3,574	3,049	+ 2.73	-14.69	
Kingsville	4,937	3	3	4						
South Gosfield Tp.	7,260	0	0	0						

[illegible]

APPENDIX 14

TOWNS AND VILLAGES WITHOUT A DENTIST IN 1978
BY POPULATION SIZE AND DISTANCE FROM NEAREST COMMUNITY WITH A DENTIST

		<u>Closest Non-Specialist Dentist(s)</u>			
<u>Place</u> (N=94)	<u>Population</u>	<u>Distance</u> <u>(km)</u>	<u>Place Name</u>	<u>No. of</u> <u>Dentists</u>	
CENTRAL REGIONAL PLANNING AREA					
<u>Northumberland</u>	Colborne	1,767	13	Brighton	2
	Hastings*	951	14	Campbellford	3
<u>Peterborough</u>	Havelock	1,236	18	Campbellford	3
	Norwood	1,288	22	Campbellford	3
<u>Simcoe</u>			29	Peterborough	36
	Cookstown*	876	14	Aliston	5
	Creemore	1,122	10	Stayner	1
	Elmvale	1,173	14	Wasaga Beach	1
	Pt. McNicoll*	1,950	6	Midland	7
	Victoria				
	Harbour*	1,146	10	Midland	7
<u>Victoria</u>	Fenelon Falls	1,627	16	Bobcaygeon	1
	Omeme*	786	18	Lindsay	11
	Sturgeon				
	Point*	45	17	Bobcaygeon	1
<u>Wellington</u>	Woodville*	569	16	Beaverton	1
			26	Lindsay	11
	Clifford*	613	10	Harriston	1
EASTERN REGIONAL PLANNING AREA					
<u>Hastings</u>	Deloro*	242	14	Madoc	1
	Frankford	1,872	12	Trenton	12
	Marmora*	1,293	18	Madoc	1
<u>Lanark</u>	Lanark*	759	16	Perth	7

* Towns and Villages that were also without a dentist in 1968 and 1973 (N=65).

** No distance given in those cases where the town or village is a part of or on the outskirts of a larger community with dentists.

Sources: Only those communities designated as towns and villages by the Ontario Ministry of Treasury and Economics (1978) are included.

Distances are approximate road kilometres estimated from the Ontario Official Road Map, 1977. 1 mile = 1.6 kilometres.

		<u>Closest Non-Specialist Dentist(s)</u>			
<u>Place</u> (N=94)	<u>Population</u>	<u>Distance</u> (km)	<u>Place Name</u>	<u>No. of</u> <u>Dentists</u>	
EASTERN REGIONAL PLANNING AREA					
<u>Leeds & Grenville</u>	Athens	998	22	Brockville	16
	Cardinal*	1,720	9	Iroquois	1
	Merrickville*	934	18	Smiths Falls	6
	Westport	686	9	Newboro	2
<u>Lennox</u>					
<u>& Addington</u>	Bath	1,016	12	Amherstview	1
	Newgurgh*	629	10	Napanee	3
<u>Ottawa-Carleton</u>	Rockcliffe Park*	2,389	-**	Ottawa	247
<u>Prescott</u>					
<u>& Russell</u>	Plantagenet*	949	10	Alfred	1
	St. Isidore				
	de Prescott*	743	16	Casselman	2
<u>Prince Edward</u>	Bloomfield*	727	9	Picton	5
	Wellington*	1,055	19	Picton	5
<u>Renfrew</u>	Braeside*	505	6	Arnprior	5
	Chalk River*	1,022	10	Deep River	3
	Cobden	1,050	15	Beachburg	1
			20	Eganville	1
			25	Renfrew	4
	Killaloe				
	Station	698	23	Barry's Bay	1
<u>Stormont, Dundas</u>					
<u>& Glengarry</u>	Chesterville	1,423	12	Winchester	3
	Finch*	386	10	Avonmore	1
	Lancaster*	587	24	Cornwall	15
	Maxville	831	22	Casselman	2
			24	Alexandria	2
SOUTHWESTERN REGIONAL PLANNING AREA					
<u>Bruce</u>	Hepworth*	391	12	Wiarton	2
			19	Owen Sound	16
	Lion's Head*	475	33	Wiarton	2
	Mildmay	981	11	Walkerton	3
	Paisley*	1,067	16	Chesley	1
	Ripley*	626	17	Kincardine	4
			18	Lucknow	1
	Tara*	702	22	Port Elgin	4
			22	Southampton	1
	Teeswater*	992	15	Wingham	2
	Tiverton*	879	13	Kincardine	4

			Closest Non-Specialist Dentist(s)		
Place (N=94)	Population	Distance (km)	Place Name	No. of Dentists	
SOUTHWESTERN REGIONAL PLANNING AREA					
Elgin	Belmont*	744	19	Aylmer	3
			19	St. Thomas	12
			22	London	156
	Dutton	1,043	12	West Lorne	1
	Port Burwell*	661	25	Tillsonburg	8
			30	Aylmer	3
	Port Stanley	1,902	15	St. Thomas	12
	Springfield*	528	10	Aylmer	3
	Vienna*	380	21	Tillsonburg	8
		26	Aylmer	3	
Essex	St. Clair Beach*	2,359	-	Windsor	96
	Tecumseh	5,768	-	Windsor	96
Grey	Chatsworth*	384	13	Owen Sound	16
	Dundalk*	1,168	19	Shelburne	4
	Flesherton*	597	10	Markdale	10
	Newstadt	498	8	Hanover	4
	Shallow Lake*	419	15	Owen Sound	16
Huron	Bayfield*	596	17	Clinton	2
			21	Goderich	4
	Blyth*	890	17	Clinton	2
			18	Wingham	2
	Hensall*	1,005	10	Exeter	3
		10	Zurich	1	
Kent	Bothwell*	922	17	Highgate	2
			18	Glencoe	1
	Erieau*	470	12	Blenheim	3
	Erie Beach*	263	8	Blenheim	3
	Thamesville	980	16	Ridgetown	3
			18	Dresden	1
		25	Chatham	20	
Lambton	Alvinston*	724	14	Watford	1
			16	Glencoe	1
	Arkona*	428	15	Forest	2
	Oil Springs*	675	12	Petrolia	2
	Point Edward*	2,417	-	Sarnia	32
Thedford*	696	15	Parkhill	1	
Middlesex	Newbury	422	11	Glencoe	1
	Wardsville*	428	13	Rodney	1
			14	Glencoe	1
			15	West Lorne	1
Perth	Milverton	1,469	26	Listowel	2
			28	Stratford	13

		<u>Closest Non-Specialist Dentist(s)</u>			
<u>Place</u> (N=94)	<u>Population</u>	<u>Distance</u> (km)	<u>Place Name</u>	<u>No. of</u> <u>Dentists</u>	
NORTHEASTERN REGIONAL PLANNING AREA					
<u>Algoma</u>	Hilton Beach*	217	35	Bruce Mines	1
	Iron Bridge	803	26	Blind River	1
	Thessalon	1,672	19	Bruce Mines	1
<u>Cochrane</u>	Smooth Rock Falls	2,373	56	Cochrane	1
<u>Nipissing</u>	Cache Bay*	689	6	Sturgeon Falls	3
	Mattawa*	2,697	60	North Bay	24
<u>Parry Sound</u>	Kearney*	275	20	Burk's Falls	1
	Magnetawan*	217	20	Burk's Falls	1
			24	Sundridge	1
	Rosseau*	214	26	Port Carling	2
			34	Parry Sound	8
	South River	1,115	10	Sundridge	1
	Trout Creek*	628	11	Powassan	1
<u>Sudbury (Dist.)</u>	Burwash	unavailable	40	Sudbury	46
	Massey*	1,351	31	Espanola	3
	Webbwood	511	14	Espanola	3
<u>Sudbury</u> (Reg. Mun.)	Capreol*	3,989	-	Sudbury	46
<u>Timiskaming</u>	Charlton*	194	44	Kirkland Lake	5
			56	New Liskeard	2
	Cobalt*	1,777	8	Haileybury	2
	Englehart	1,689	43	New Liskeard	2
			46	Kirkland Lake	5
	Latchford*	456	23	Haileybury	2
	Thornloe*	161	23	New Liskeard	2
NORTHWESTERN REGIONAL PLANNING AREA					
<u>Kenora</u>	Keewatin*	1,832	-	Kenora	6

COMMUNITIES WITHOUT DENTISTS IN 1973 BUT WITH ONE OR MORE DENTISTS IN 1978

1978 No. of Non-Specialist Dentists		Place	1978 No. of Non-Specialist Dentists		
CENTRAL REGIONAL PLANNING AREA			EASTERN REGIONAL PLANNING AREA		
<u>Dufferin</u>	Grand Valley	1	<u>Hastings</u>	Deseronto	2
<u>Haldimand-Norfolk</u>	Port Rowan (Norfolk Tp.)*	1		Foxboro (Thurlow Tp.)	1
<u>Peterborough</u>	Bridgenorth (Smith Tp.)	1		Stirling	1
<u>Simcoe</u>	Brechin (Mara Tp.)	1	<u>Leeds & Grenville</u>	Lansdowne (Front of Leeds and Lansdowne Tp.)	1
	Stroud (Innisfil Tp.)	2	<u>Ottawa-Carleton</u>	Kenmore (Osgoode Tp.)	1
	Wasaga Beach	1		Metcalfe (Osgoode Tp.)	1
<u>Waterloo</u>	Baden (Wilmot Tp.)	1	<u>Prescott & Russell</u>	Alfred	1
<u>Wellington</u>	Drayton	1		Embrun (Russell Tp.)	1
	Hillsburgh (Erin Tp.)	3		L'Original	1
	Rockwood (Eramosa Tp.)	1	<u>Renfrew</u>	Beachburg	1
<u>York</u>	Keswick (Georgina Tp.)	2		Palmer Rapids (Raglan Tp.)	1
	Schomberg (King Tp.)	1			

* Names in parentheses indicate the proper municipal designation according to the 1978 Ontario Municipal Directory.

SOUTHWESTERN REGIONAL PLANNING AREA

NORTHWESTERN REGIONAL PLANNING AREA

Bruce

Lucknow

1

Kenora

Ear Falls
(Ear Falls Tp.)

1

Elgin

Rodney

1

Essex

Emeryville
(Maidstone Tp.)

1

Ignace
(Ignace Tp.)

1

Grey

Kimberley
(Euphrasia Tp.)

1

Beardmore
(Beardmore Tp.)

1

Huron

Zurich

1

Marathon
(Marathon Tp.)

1

Middlesex

Ailsa Craig

1

Mount Brydges
(Caradoc Tp.)

2

Parkhill

1

Oxford

Norwich
(Norwich Tp.)

1

Thamesford
(Zorra Tp.)

1

NORTHEASTERN REGIONAL PLANNING AREA

Algoma

Bruce Mines

1

Parry Sound

Burk's Falls

1

Callander
(N. Himsworth Tp.)

1

Sundridge

1

Sudbury (Reg. Mun.)

Azilda
(Rayside-Balfour)

1

This book must be returned to
the Dental Library by the last
date stamped below. It may
be renewed if there is no
reservation for it.

APR 1 1980

JUN 27 1980

JAN 21 1982

JAN 3 1983

Jan 10 1983

Jan 19 1983

JAN - 2 1984

NOV 22 1984

MAR 30 1987

FEB 23 1999

RK
58.7
C3L45

March 23/87

Nov 14/84

Dec 19/83

Harry R. Abbott Memorial Library

HRA: 4967

FACULTY OF DENTISTRY
124 EDWARD ST.
TORONTO, ONT.

